PULP & PAPER

JAN. 1948
Vol. 22 Number 1

The Cellulose Age

"A HOLIDAY-GREETING CARD TOWN"

An "on-the-spot" story of new LongLac mill in Ontario . . . see Page 26

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It was an awful nuisance... putting butter down the well

That roll of butter snuggled in the moss covered bucket is a moss covered idea — to today's homemaker. She's used to the last word in refrigeration — a gleaming mechanical refrigerator and a wonder-working home freezer. In both, Panelyte plays an important part.

Panelyte is the trade name of the hard, laminated plastic made by St. Regis. Hot pressed sheets of fibrous paper impregnated with synthetic resin make a remarkable insulating agent. There's nothing like it for lightness and strength, and for resistance to scratches and stains.

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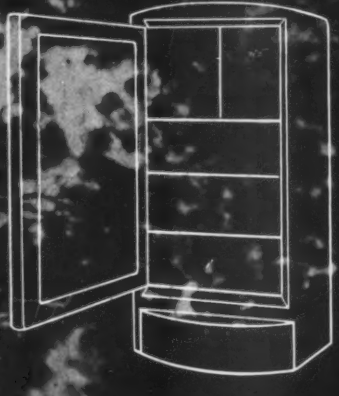

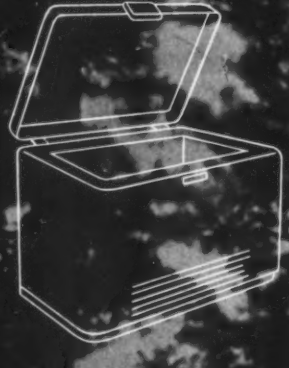

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"The Cellulose Age"

EDITORIALS

Newsprint and Alaska

EDITOR & PUBLISHER, widely-read weekly publication for newspaper publishers and advertisers, recently quoted from an editorial in **PULP & PAPER** which stated that the newspaper industry is going to have to invest its own money in mills in order to ease the newsprint shortage. A few newspaper groups have so acted in the South, the Northeast, the Middle West and on the Pacific Coast.

Now the Editor & Publisher, in a later issue, leads off with this editorial:

"We have shouted as loudly as we can about the necessity of developing Alaskan timber resources for newsprint production. Many publishers have become aware that Alaska is vital to our future supply of paper. Steps have been taken by the government toward that end. Here's hoping the fruit doesn't die on the vine or get gobbled up by other industries because of the lethargy of those interested in newsprint for their life's blood."

It then quotes the Forest Service as saying the U. S. will be at the bottom of the national woodpile in 20 years and quotes Ontario's Royal Commission as saying Ontario has 25 years of wood ahead, under present operations conditions. The projected Ontario ban on wood exports, says E&P, may force more U. S. newsprint producers in higher grades as their wood costs go up, while at the same time encouraging Canadians to change from newsprint to higher grades as the raw material for U. S. fine paper mills is reduced.

In conclusion, says Editor & Publisher: "If newspapers are to have a cheap supply of newsprint to meet growing circulation and advertising demands, then it is time they were thinking about future supply. The most obvious move for publishers is to back every effort to promote forestry conservation in this country. The next is to get behind the efforts to develop a new source in Alaska. There are reports that pulpwood users, other than newsprint manufacturers, are bidding for the Alaskan rights.

"It is inconceivable that U. S. publishers do not have the influence, and cannot get the financial backing, or do not have the acumen to see the handwriting on the wall. Unless they protect their future by helping in the development of new wood producing areas, they face the strong possibility of an even greater newsprint shortage in the future."

The Familiar Cry Again

A. E. Geigengack, head of the U. S. Government Printing Office, has again come out for government-owned and operated paper mills because "of present highly unsatisfactory methods of paper procurement." This time he rings in the chairman of the joint committee on printing and says he's in favor of it, too.

With construction costs for paper mills ranging from $15,000,000 to twice that much or more; with their managment and operation become a very complicated and specialized business, we doubt whether the Republican Congress will pay much heed to Mr. Geigengack's plea.

Especially, if it looks a little deeper in his report and notes that the amount of government printing in several departments is even above wartime levels. And Mr. Geigengack makes the depressing remark that he has given up on trying to make any reduction — ever, or as long as he is the public printer.

Cheap Paper — But Precious Trees

A rhapsodic article recently published in one of the digest-type magazines enthuses over new paper products—paper airplane wings, flame-proof paper draperies, paper dishes that look like china, cardboard portable refrigerators, multiwall bags, Junior's paper bibs, throw-away paper shirts and hose, pillowcases and blankets, paper raincoats and "rubbers," the Wisconsin Rapids plastic paper house, DDT-treated wallpaper, paper radio-recording tape, paper sprayed with seed and fertilizer and laid out for a permanent lawn, impregnated paper laminates that will hold up the weight of 14-200 lb. men, etc., etc.

"The big fact about paper is that it is cheap," said the article. It explains that paper is made by "the simplest of all processes for making any kind of manufactured material." And that "paper is just getting started as an inexpensive rival to plastics, textiles and even light metals."

However, the trees from which paper is made are far more precious than their measure in dollars and cents. No one is more aware of it than the pulp and paper companies which are principal pioneers of the "tree farm" movement and who have accomplished far more than any public agency or other private groups in putting the growing and harvesting of trees on a "crop" cycle.

"To build up and preserve a cooperative spirit between a great group of employers and employes is a cheering proof of the possibilities of human nature. The secret of it is more important to mankind than any secret of trade or any new invention."—Herbert Hoover.

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HANDY REFERENCE—On Page 80 of this issue is a complete index of articles published in Volume 21 — all issues of PULP & PAPER in 1947.

National TAPPI
ON PACIFIC COAST IN 1949

A National Fall meeting of TAPPI will be held on the Pacific Coast in 1949 —in either Seattle, Portland, Ore., or Vancouver, B. C. — but it very likely will be a few weeks ahead of the autumnal equinox of that year and be held some time in August.

The national executive committee of TAPPI has formally accepted the invitation extended by the Pacific Coast section. Action was taken at the committee's Nov. 2 meeting in New York.

In extending its invitation to the National TAPPI, the sentiment of the Coast section was strongly in favor of continuing the series of specialized Fall meetings of different division of TAPPI except in 1949, or such years as the organization decides to come to the Far West. Chairman Joseph L. McCarthy (U. of Wash. faculty) of the Coast section, extended the invitation and it was accepted in behalf of TAPPI by R. G. Macdonald, secretary.

The 1949 meeting will be the first one held on the Pacific Coast since 1940 and only the third one in TAPPI's history. Since it is such an extraordinary undertaking in comparison with the eastern TAPPI meetings, it was felt that every division and committee of TAPPI should cooperate as far as possible.

A sulfite pulping symposium in the Fall of 1949 had previously been suggested for the Pacific Coast, but leaders of the Coast section pointed out that other fields as well as sulfite pulping are of prime interest in the Far West today. Some of the newest and most modern kraft mills are being completed or are being built on the Pacific Coast. And some of the outstanding engineering advances in the industry, such as in chemicals and fuel recovery, hydraulic log barking, etc., are recent achievements of the Pacific Coast. The Coast TAPPI leaders felt there is a great deal for the members of all divisions of TAPPI to see on a western trip from the new salvage logging operations in the woods to new and interesting finished products of the mills.

Plans For Fall of 1948

The Engineers' Division of TAPPI, with its successful specialized group Fall meetings behind them — in Milwaukee in 1946 and Philadelphia-Wilmington in 1947 —already plans a 1948 meeting in Buffalo, N. Y., Oct. 25-28. The engineers have indicated that they might hold a group meeting again in the East in 1949, but the Pacific Coast TAPPI section is also planning what promises to be an interesting engineering program for the general Fall meeting that year in the Far West.

President Wilbur F. Gillespie of TAPPI, technical director of Gaylord Container Corp., Bogalusa, La., who probably will hold that office for another year after the National Convention in New York, Feb. 23-26, was one of the kraft industry leaders who came west for the 1940 convention and he spoke highly of the way that meeting was organized and staged.

Ralph A. Hayward, president of Kalamazoo Vegetable Parchment Co., who was then vice president of TAPPI and who later became its president, said the meeting held in Seattle, Aug. 20-23, 1940 "was one of the finest fall conventions I ever attended."

A special train was run from Chicago for many of those who attended. A big salmon fishing derby; a trip into the big timber, and meetings on the spacious University of Washington campus, with its Tudor-Gothic architecture, were among the highlights of that memorable meeting.

Portland, Ore., also has the experience of a National Fall meeting behind it—the only other one ever held on the Pacific Coast was held in the Rose City in 1934. And both Seattle and Portland have several large hotels.

Vancouver, B. C., has also loomed as a possible site since the completion of the modern Vancouver Hotel, built by one of the transcontinental railroads and rated as one of the finest convention hotels on the continent.

All three cities have college campuses offering a desirable academic background for the technical association — Portland's Reed College, overlooking the Columbia having already been a site for a local TAPPI section meeting, and Vancouver having the University of British Columbia.

Some of the big modern Pacific Coast mills perhaps are more accessible to Seattle and Portland than to Vancouver; all three offer scenery in abundance but inland boat trips would be made more easily in Seattle or Vancouver.

The time and place of the 1949 national meeting on the Coast will be decided by the Coast TAPPI.

The Kraft Industry and Chemical By-Products groups have had three fall meetings in the South — Sanannah in 1945; New Orleans in 1946, and Asheville in 1947—and will probably go South again in 1948. But in kraft development, the Coast will have much to offer by the summer of 1949.

The Fibrous Agricultural Residues and Plastics groups who have held separate meetings—though quite small ones—will also find much to interest them on the Coast. Los Angeles, for example, has become one of the great plastics centers of the world and plastics and other agricultural fibers have been given much attention in the Pacific Northwest, and there have been interesting developments in both plastics and agricultural fiber resources studies in the Pacific Northwest, too. The plastics group and testing division of TAPPI plan a 1948 Fall meeting in Pittsburgh.

But when 1949 rolls around, all will be invited to participate in the Pacific Coast meeting.

COMING INDUSTRY MEETINGS

TAPPI Lake States Section—Am. Legion Hall, Appleton, Wis. ..... Jan. 13

Michigan Papermakers Annual Get-Together — Park-American Hotel, Kalamazoo, Mich. ..... Jan. 15

TAPPI Empire State Section (East) —Queensbury Hotel, Glens Falls, N. Y. ..... Jan. 16

TAPPI New England Section—Roger Smith Hotel, Holyoke, Mass. ..... Jan. 16

TAPPI Pacific Coast Section—Camas, Wash. ..... Jan. 16

Supts. Connecticut Valley Div.—Sheraton Hotel, Springfield, Mass. ..... Jan. 17

Chicago Profession Paper Group—Chicago Bar Assn., Chicago ..... Jan. 19

TAPPI Empire State Section (West) —Prospect House, Niagara Falls, N. Y. ..... Jan. 21

Southern Pulpwood Assn., Atlanta, Ga. ..... Jan. 28

Canadian Pulp & Paper Assn.—Mt. Royal Hotel, Montreal ..... Jan. 30-31

TAPPI Kalamazoo Valley Section—Columbia Hotel, Kalamazoo, Mich. ..... Feb. 5

Supts. Michigan Division—Park American Hotel, Kalamazoo, Mich. ..... Feb. 19

American Paper & Pulp Assn.—Waldorf Astoria, New York ..... Feb. 23-27

TAPPI National Convention—Commodore Hotel, New York ..... Feb. 23-26

Forest Products Research Society—Chicago ..... March 22-24

Canadian Industry Woodlands Section—Montreal ..... Mar. 31-Apr. 1-2

National Paper Trade Assn.—Waldorf-Astoria, New York ..... April 5-7

National Paper Box Mfgrs.—Netherlands Plaza, Cincinnati ..... May 9-12

National Supts. Convention—Roosevelt Hotel, New Orleans ..... May 19-21

Envelope Mfgrs. of America—White Sulphur Springs, W. Va. ..... June 10-11

National Paper & Twine Assn.—French Lick Springs, Ind. ..... June 11-12

Technical Section Canadian Assn.—Harrison Hot Springs, B. C. ..... Sept. 4-6

Paper Industry Salesmen—Midston House, New York City—Every Monday, 11 a.m. - 2:30 p.m.

IN INDUSTRY NEWS THIS PAST MONTH (left to right):

PAUL L. PHILLIPS of Albany, N. Y., who has succeeded Matt Burns, retired, as President of AFL Brotherhood of Papermakers. Born in Camden, Ark., 43 years ago and educated at Louisiana Tech, he was editor of college weekly. In 1933 he joined union at Camden where he worked in Southern Kraft mill and became International Union Representative in 1937.

SYDNEY FERGUSON, President of Mead Corp., elected President of American Forest Products Industries, Inc., educational conservation organization sponsored by lumber and pulp and paper mills.

THURSTON L. YOCUM, Sales Engineer for E. D. Jones & Sons Co., was formerly with Crown Zellerbach mill at Camas, Wash., and served five years in army including service in France and Germany, rising to Major.

E. NOBLES LOWE, elected Secretary of West Virginia Pulp & Paper Co., 230 Park Av. New York. He is also General Counsel and Public Relations Director.

DARYL R. BOOMER, of Berkeley, Calif., graduate of U. of California, whose appointment to serve under Wm. King, Pacific Northwest Representative of Oliver United Filters Inc., was announced by P. J. McGuire, Western Division Manager.

A. B. RECKNAGEL, formerly on Cornell University faculty and now in charge of Forestry School at U. of British Columbia, will become Chief Forester for St. Regis Paper Co. at end of school year in June. He will formulate and administer a forest policy for company's 2,000,000 acres of forest lands.

T. D. JOHNSON, Jr., who has moved into home at 3328 S. W. 12th Av., Portland, Ore., and taken up duties as Pacific Northwest Representative of E. I. du Pont de Nemours & Co.'s Organic Chemicals Dept., supplying pulp and paper mills with dyes, wetting agents, deturgents and finishing agents. He graduated from Princeton in 1940 and worked on smokeless powder research for du Pont in Wilmington, Del. during war.

ALASKA DEAL ILLEGAL

Sen. Butler Informs PULP & PAPER

Senator Hugh Butler of Nebraska advised **PULP & PAPER** on Dec. 10 that the much-publicized sale by two Indian villages through eastern attorneys of Alaska timber which they claim to own is not valid because it is not approved by the U. S. Department of Interior.

Senator Butler is chairman of the senate committee on public lands. His letter follows:

"In the December issue of your magazine you have made a thorough investigation of the Indian 'deal' and I am glad that you have been able to bring these facts before your readers.

"We have been in touch with the Interior Department regarding the proposed sale of the two Indian tribes and have been advised that these contracts have never been received by them for approval. The department, of course, must approve these contracts before they are valid. Therefore nothing can be done until the matter is brought before them.

"(Signed) HUGH BUTLER,
U.S.S., Chairman, Committee on Public Lands."

Alaska Timber Sale Postponed But Still "Alive"

The U. S. Forest Service has advised **PULP & PAPER** that "substantial parties" are still interested in building a sulfite market pulp mill in the vicinity of Ketchikan, Alaska, despite the fact that it was necessary to postpone the scheduled auction sale for 1½ million cubic feet of government timber in that area from Dec. 15 to April 14, 1948.

No prospective bidder was in a position to submit a firm bid on Dec. 15, we are advised by the Forest Service. The "substantial parties" interested needed additional time to work out a financial and other arrangements before submitting a bid. It is understood the delay was not due to conflicting Indian claims to ownership of the timber under consideration.

There has been quite a stir caused by the so-called Timber Development Corp., whose "incorporators" are all in the office of Richard G. Green, attorney at 9 Rockefeller Plaza, New York, and which asserts it has acquired the rights from Kase and Kasaan Indian tribes to certain government timberlands of Alaska. The Indians were encouraged to lay "aboriginal" claim to this timber in an "opinion" of former Interior Secretary Ickes.

It is interesting to note that one of these tribes lays claim to a portion of the timber in the Ketchikan unit and another one to timber in the Petersburg-Thomas Bay unit in Alaska.

This latter unit is scheduled to be auctioned off by the Forest Service on Feb. 18. A group of western United States newspapers had withdrawn their substantial portion of an offer for the Petersburg-Thomas Bay unit last fall, causing postponement of the sale at that time, and there has been no information available that a new bid is assured for the scheduled February auction.

In last month's **PULP & PAPER**, a complete report on the ramifications of the attorneys and groups "championing" these Indian claims was presented. Since then Senator Butler (Rep., Nebraska), chairman of the Senate public lands committee, said the U. S. government's purchase of Alaska from Russia gave the U. S. title to all natural resources not held by private owners and his committee wanted to know "by what authority" any Indian groups or their attorneys presumed to "sell" these resources.

Parties dealing with the Forest Service had received written "warning" from the Timber Development Corp., that they had acquired Indian "rights" but were willing to listen to offers for "their" timber. This, despite the wide publicity the newspapers gave to this so-called company's plans to immediately start cutting timber themselves.

PULP & PAPER Article Brought to Senate's Attention

A western member of Congress expresses hope that the article published last month on the Alaska Indian timber "deal" would have "a beneficial effect," when the Senate Public Lands committee takes up this matter. The article was brought to the committee's attention.

Our December article exposed the ramified background of lawyers and associations, purporting to uplift the Indians of Alaska which is behind the so-called sale of government timber in the territory to a New York "corporation."

"The article is a good summary of a very much over-publicized matter which I hope will have its beneficial effect on the anticipated action of the Senate committee which will deal with this matter," writes Representative Homer R. Jones (Rep., Wash.)

No Pulp Relief For Non-Integrated Mills

An adequate pulp supply for the 300-odd paper mills in the United States which have no pulpmaking facilities of their own was "not yet in sight," according to Fred G. Stevenot, president of Puget Sound Pulp & Timber Co., when he released his annual statement on the pulp situation (it was on Nov. 17).

He said 1947 domestic production and imports will be at or close to record high levels, but "pulp is being consumed almost as fast as it becomes available, leaving inventory shelves almost bare." Self-contained pulp and paper mills are not so badly off, he said, but the most serious situation is in the market pulp field.

HALT INFLATION PLAN

Outlined by NAM Vice President

THOMAS J. BANNAN, National Vice President of National Association of Manufacturers, interviewed in this article by PULP & PAPER on 12-point Halt Inflation program.

Immediate and substantial reduction of individual income tax rates is one of the most important steps in the 12-point "Halt Inflation" program proposed by the National Association of Manufacturers, in the opinion of Thomas J. Bannan who in December was elected national vice-president of NAM.

"This is the only way to provide funds for further capital investment," said Mr. Bannan when interviewed in New York City by a staff member of **PULP & PAPER** following the NAM Convention there. "It has been found that 20% of our national product is needed to keep our plant investment up to standard and to provide the necessary jobs to support our population in its ever increasing standard of living," he said.

Mr. Bannan, who is president of Western Gear Works, with plants along the Pacific Coast, and board member of Pacific National Bank of Seattle, was vice-chairman of the all-important NAM resolution committee this past year. He is an ex-president of the National Gear Manufacturers Association. Just recently he made a personal tour of some of the important new additions built by Pacific Coast pulp and paper mills.

"As American business men, we recognize that our system is right," said Mr. Bannan, "but few of us have time to study why it is right, why it is working and why it can keep on working. We find ourselves these days almost always on the defensive and not always with proper ammunition. One of the important things NAM does is provide research which results in facts in favor of the American way of free enterprise and individual liberty."

These facts can be passed on to business leaders, Mr. Bannan said, but the work is lost if a further step is not taken. "We must pass these facts on to our associates, which is to say our employes. NAM is getting the facts but American industry is really in desperate need for more business men who will take the time to spread the word — who will realize that attention to the broader phases of this fight for individual freedom and American enterprise is essentially a fight for their own business. And we need most of all to inform our employes intelligently, honestly, and carefully."

Mr. Bannan believed that the 12-point program of NAM should be studied and promoted by pulp and paper industry leaders. They are, in brief:

1. Reduce government spending.
2. Provide funds for further capital investment by immediate and substantial reduction of individual income tax rates.
3. Adopt systematic plan for paying off the public debt.
4. Offer new long-term government bonds issue to individual investors, proceeds to be used to retire government bonds held by banks.
5. Discourage inflationary expansion of bank credit by permitting interest rates to seek their own levels.
6. Redouble efforts to increase production and pass on benefits to public.
7. Encourage management to plow back earnings by eliminating Treasury pressure to distribute 70% of its profits as dividends.
8. Encourage labor leaders to forego demands for further general wage increases without a corresponding increase in productivity — except in cases of gross inequities.
9. Set aside restrictions on individual productivity, consistent with safety, and eliminate feather-bedding.
10. Give emergency foreign relief in goods, not dollars, with an American relief agency making the purchases — and identify them as having been provided by the U. S.
11. Finance reconstruction loans to foreign countries, as distinct from gifts and grants, through World Bank and private sources rather than out of taxes collected from the American public.
12. Provide maximum incentive for increased production abroad by requiring foreign nations, as a condition of our aid, to establish sound currencies and to modify and eventually eliminate price control and other controls over the internal production and distribution of commodities.

The NAM outlook for business, Mr. Bannan said, was generally encouraging. But NAM leaders were also agreed that these things had to be circumvented: Labor unrest, material shortages, runaway inflation, possible government controls.

BUCKLEY JOINS DUNHAM

ALAN C. DUNHAM (left), representative of Lockport Felt Co. and other mill equipment manufacturers on Pacific Coast for 21 years, has been joined as business associate by RICHARD S. BUCKLEY (right), former Superintendent, Fernstrom Paper Mills, Pomona, Calif. Mr. Buckley, who resigned from that position to affiliate with Mr. Dunham, was born in Lowell, Wash., graduated in chemical engineering from Washington State College, and was on technical staffs at Everett Pulp & Paper Co. and Puget Sound Pulp & Timber Co. at Anacortes, and was Chemist at the Weyerhaeuser mill in Everett before going to Fernstrom eight years ago. He was Technical Director at Fernstrom before becoming Superintendent. Mr. Buckley is married to the former Harriet Rasmussen of Everett and they have two sons, 10 and 6 years old. They are looking for a home in Portland, Ore., where Mr. Dunham and Mr. Buckley have their offices in the Mayer Bldg. Besides Lockport, they represent Wm. Cabble Excelsior Wire Mfg. Co. and Porritts & Spencer Ltd., Canada.

Memo to A Senator Who Sees a Newsprint "Monopoly"

For the first time in a good many years Canadian paper companies have differed in their newsprint price policy, as indicated by Consolidated Paper Sales Co., Abitibi Power & Paper Co. and Canadian International Paper Co.

Consolidated stated Nov. 4 that it had decided not to increase prices during the first two months of 1948, the reasons given being that the company wished to "hold the line" and prevent spiralling prices. However, the company pointed out that if operating costs continued to soar it would have to revise the price.

On the following days Abitibi and Canadian International announced their price on standard newsprint would be increased $6 a ton on Jan. 1, bringing the new price to $96. Other companies reported the matter was under consideration. On Dec. 15 Powell River Co. and Great Lakes Paper Co. announced a $6 boost.

Starts Newsprint

Pacific Paperboard Co., Longview, Wash., is making newsprint on No. 4 machine. E. E. Flood president told **PULP & PAPER** the company has converted its latest machine over to manufacture of newsprint for two principal reasons. First, to supply the small users of newsprint with stock they so urgently need; secondly, to acquaint personnel with newsprint and its manufacture. This is in anticipation of the Moore & White newsprint machine the company has already ordered.

Arthur J. Methot was recently engaged as superintendent of newsprint mill. He has been affiliated with the making of newsprint for many years at International Paper Co., Three Rivers, Quebec.

NEW CANADIAN MILL

Backed by 150,000 Cords a Year

Latest entry into the pulp manufacturing field on the Pacific Coast is Canadian Western Lumber Co., operating for many years the largest fully integrated sawmill in the British Commonwealth at Fraser Mills, B. C., and the Comox Logging & Railway Co. on Vancouver Island.

The company plans to build a mill at Duncan Bay, on the northeastern coast of Vancouver Island, within a short distance of the Elk Falls power plant recently completed by the British Columbia Power Commission, which is now providing electric energy for the newly-built Bloedel, Stewart & Welch unbleached kraft mill at Port Alberni.

Details connected with the processing and the nature of the mill's finished product have not been announced, but it will be a market quality pulp. The date of construction and extent of the investment have yet to be determined, although a government announcement, without company confirmation, mentioned a 200-ton mill costing $20,000,00 to $30,000,000.

In conversation with **PULP & PAPER**, Henry J. Mackin, president of Canadian Western, stated that he was leaving for the east during December to confer with associated interests in the project and that he might be in a position to give out additional information following his return.

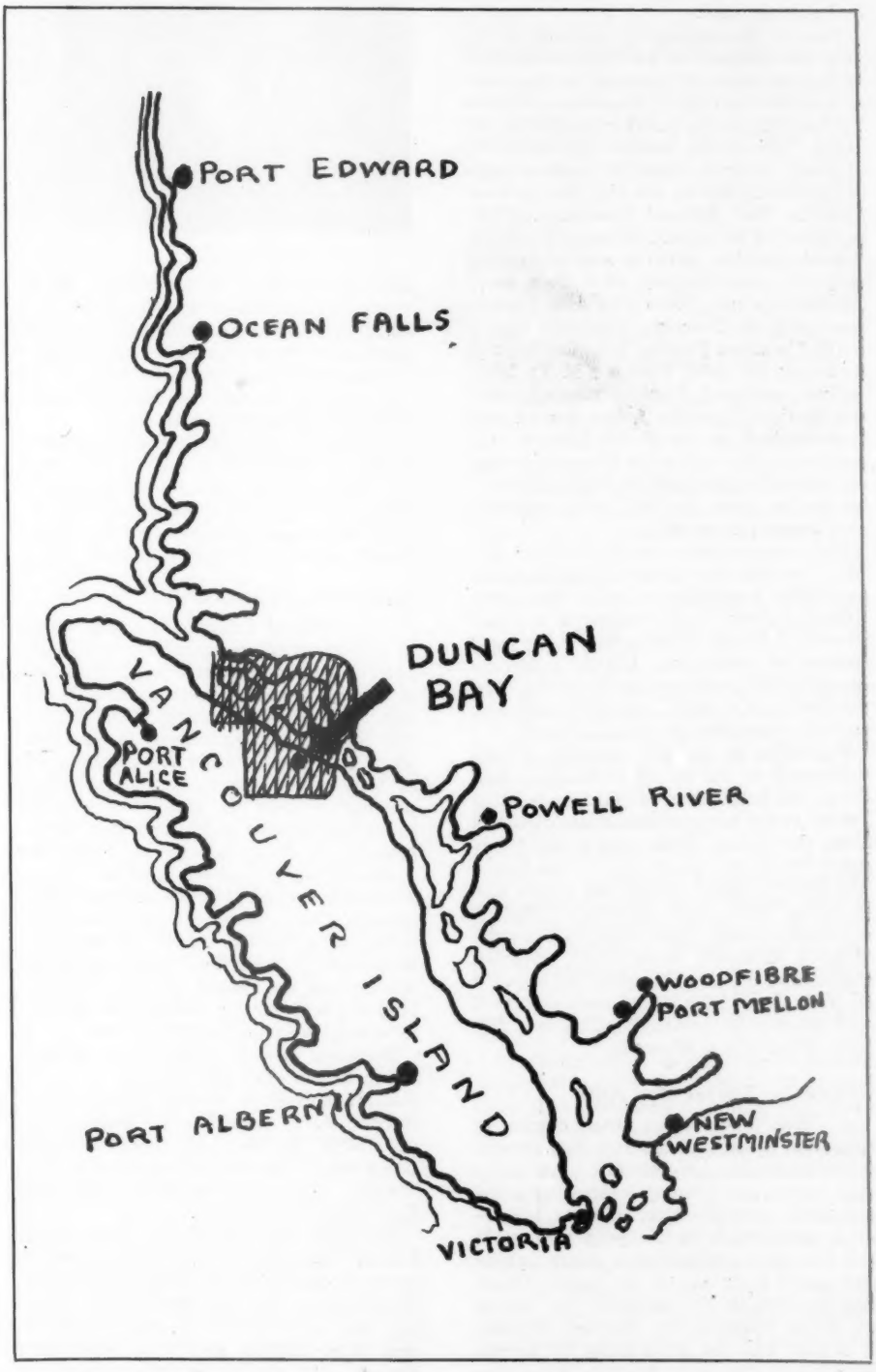
Establishment of a pulp mill follows in natural sequence the plans laid by the Canadian Western organization in recent years for complete utilization of wood produced by the company's far-flung timber operations.

Through its subsidiary, Comox Logging & Railway Co., the organization has pioneered the field of small log utilization in British Columbia. Active head of Comox Logging & Railway Co. is Robert J. Filberg, first vice-president of Canadian Western and general manager of the logging company, one of the best known logging executives in the country.

Mr. Filberg tells **PULP & PAPER** that considerable progress has been made in developing a source of supply of pulpwood on the company's holdings on Vancouver Island and adjacent islands, and that new techniques are steadily being worked out in connection with collection and transportation procedure.

Pioneers In Salvage Logging

It will be remembered that three years ago Comox Logging & Railway Co. entered into a partnership with Powell River Co. and the British Columbia government's forest service in experimenting with the collection of logging debris and small standing wood left on stands logged over near Ladysmith. Small logs were bundled and taken by truck to the Ladysmith dump, where they were rafted and



DARKENED AREA SHOWS extent of forest management area and its location as applied for by Canadian Western Lumber Co. for new market pulp mill. Location of other pulp and paper mills in British Columbia are shown. The new Celanese sulfite mill will be at Port Edward; Pacific Mills is at Ocean Falls; Powell River Co. at Powell River; B. C. Pulp at Woodfibre and Port Alice; Sorg at Port Mellon; Westminster at New Westminster and the new Bloedel, Stewart & Welch mill is at Port Alberni.

towed to the Powell River mill. These operations were fully described in **PULP & PAPER**. Economically, this was a small operation, but it opened the eyes of the associated interests to the possibilities of small log utilization. Since then the Comox organization has continued to experiment, and it was only recently that the parent company decided to go ahead with the larger program of converting the wood into pulp in a mill under its ownership and management.

One of the interesting features of the new development is the application made to the provincial government in the name of another subsidiary, Canadian Western Timber Co., for a forest management license. This is the second application of its kind formally made by a corporation in British Columbia, the first having been made by Port Edward Development Co., in behalf of its parent, Celanese Corporation of America, which is now proceeding with the establishment of a high grade sulfite pulp mill near Port Edward under the name of Columbia Cellulose Co.

The Canadian Western's application was made by its chief forester, F. D. Mulholland, as agent. He was formerly with the British Columbia forest service and is recognized as one of the foremost authorities on the province's forest resources, his exhaustive analysis of British Columbia timber made in 1937 being regarded as a classic in its field.

The management license applied for, which implies the company's readiness to undertake management on a long-term, sustained-yield basis, embraces a vast stretch of forest territory in the Sayward section of Vancouver Island, comprises several islands separating the island from the British Columbia mainland and also an extensive area on the mainland.

Beginning at the 50th parallel of latitude south of the mouth of the Campbell River, the boundaries of the management license swing in a northwesterly direction along the Salmon River and to the Johnstone Straits at a point west of the Salmon's mouth, thence across the straits and including most of the territory tributary to Loughborough Inlet, down in a southeasterly direction along Calm Channel and around towards Campbell River again on Vancouver Island. The area embraces such islands as Hardwicke, Thurlow, Sonora, Quadra and Maurelle.

Contest for Timber May Arise

This represents a small empire of timber in itself, and the fact that several other important corporations have holdings there may develop interesting complications, none of which, however, is likely to interfere with the pulp mill project. The area applied for contains extensive forest lands now in the name of such organizations as Powell River Co., Salmon River Logging Co., Bloedel, Stewart & Welch, Ltd. By advertising its license application, Canadian Western has taken the initial step. The fact that the company plans to establish a processing plant immediately tributary to the forest sought will, of course, be a strong point in its favor. However, the other companies are not expected to surrender their rights without a protest. If the timber has already been alienated for their use, their claim to it cannot be interfered with, but this applies only to mature timber, and it is understood that the applicant for the management license would have access only to the second growth.

On the other hand, present holders of timber in this area point out that they, too, had plans for forest management licenses and that they had intended to include some of the timber now encompassed in the Canadian Western's bid.

H. J. MACKIN (on the left) is President of the Canadian Western Lumber Co., which plans a new pulp mill on Vancouver Island in British Columbia.

R. J. FILBERG (on the right), is First Vice Pres. of Canadian Western and General Mgr. of its subsidiary, Comox Logging & R'way Co., which pioneered in salvage logging on Pacific Coast.

Vast Timber Operations

Originally financed to a large extent in the United Kingdom and eastern Canada, Canadian Western's head office was shifted only recently to the Marine Building, Vancouver, although Mr. Mackin, the chief executive officer of the company, has always made his headquarters in Vancouver. The company was incorporated in 1910. In addition to its big sawmill at Fraser Mills, near New Westminster, B. C., on the Fraser River, the company has 97 lumber yards in Western Canada. It owns approximately 72,000 acres of Crown granted timber lands and holds an additional 23,000 acres under leases and licenses. The Fraser Mills operation has an annual capacity of 200,000,000 board feet of lumber, in addition to doors, shingles, plywood, etc.

Directors of the company, in addition to Mr. Mackin and Mr. Filberg, are G. G. Stewart, and W. A. Walker, both of Vancouver; J. F. Lash, C. L. Burton and Colonel K. R. Marshall, Toronto. Total assets were listed in 1947 as nearly $20,000,000. The net income in 1946 was $1,019,428.

Canadian Western is the third large British Columbia lumber organization to enter the pulp field in recent months, the others being Bloedel, Stewart & Welch, Ltd., whose kraft mill at Port Alberni is now in production, and H. R. MacMillan Export Co., which recently announced plans for a wallboard mill to cost between $2,000,000 and $3,000,000, to utilize by-products of the company's large sawmills and plywood plants.

Hon E. T. Kenney, British Columbia's minister of lands and forests, made the first official announcement of Canadian Western's project after the application for the forest management lease had been formally made.

Other New Mills

In discussing pulp and paper prospect in British Columbia with **PULP & PAPER** recently, Mr. Kenney expressed optimism with respect to further expansion in the immediate future, as reported in our December issue.

Mr. Kenney would not be surprised if two or three new mills, in addition to the Canadian Western's, were to be established in the west coast province during the coming year. Possible sites are regarded as the west coast of Vancouver Island, in the Nootka region; the Prince George district and the West Kootenay, in the southeasterly part of the province.

"We have the timber, the waterpower and the access to world markets," said Mr. Kenney. "And we have a definite, long-term forest policy which is something that was lacking until recently. We have provided the framework, in the form of forest management licenses, whereby private enterprise may embark upon very large forest operations in the knowledge that their plans will not be interferred with so long as they abide by the basic terms of the agreement."

These terms, roughly, are that cutting and other practice will be in accordance with forest service regulations and on the basis of sustained yield. Several large wood-using industries in British Columbia are at present building up their forestry departments with a view to taking advantage of the province's natural facilities in co-operation with the government.

There is still an expectation that the Bowaters' organization of the United Kingdom, which now operates one of the world's largest newsprint mills at Corner Rock, Newfoundland, will enter British Columbia on a large scale. In fact, they may make a deal with interests already operating on the coast. It is understood that the Bowaters' group has decided that the future supply of pulp from Europe is so uncertain that it will have to bank on expansion on this continent.

A rough estimate of the amount of raw

material available for the Duncan Bay mill of Canadian Western is 25% of a total annual timber cut averaging 200,000,000 to 300,000,000 (400,000 to 600,000 cords). This amount of wood would be utilized by the pulp mill without in any way interfering with the loks primarily for sawmill use, which are towed from the Comox area and Ladysmith. The company has recently adopted a policy of bundling all its logs, this technique being followed after the logs are in the water rather than on land.

The methods to be followed in segregating and transporting small logs and other material to the pulp mill have not yet been revealed, but members of the Comox Logging & Railway Co. organization say that a lot of things have been learned about this operation in recent months.

A large portion of the pulpwood supply will come from the extensive group of islands which lie in the northern reaches of the Gulf of Georgia from Cape Mudge, opposite Campbell River, as far north as Alert Bay. Surveys show that a continuous supply of 400,000 cords annually can be cut from these second growth hemlock stands, insuring that the forest can be developed on a sustained yield basis. The hemlock supply of these islands, augmented by small logs from the company's regular operations around Campbell River and Comox and further south, in the Nanaimo Lakes and Ladysmith area, is expected to provide up to 1,000,000 cords a year.

Fibreboard Expansion Report of Progress

At the Antioch, Calif., mill of Fibreboard Products, Inc., an addition to the carton department, 100 by 290 ft., has been completed and machinery installed. A building, 85 by 240 ft., has been added to the corrugating department, with spur track and loading dock. A new power plant is being built, equipped with a new 150,000 pound-650 pound pressure boiler and two additional 2,000 k.v.a. steam turbines.

At the Stockton, Calif., mill the addition of a 3,500 k.v.a. steam turbine has been completed and the No. 3 boiler has been rebuilt. An addition to the corrugating department gives 50,000 square feet of additional space for equipment. A two-story addition to the carton department, 151 by 230 ft., has been completed. At Portland, Ore., a complete new carton plant, 200 by 600 feet., will be completed by Feb. 1.

Construction is progressing rapidly on the new San Joaquin Division at East Antioch, Calif. This plant will be ready for operations during the third quarter of 1948. It is a two-unit Kraft pulp mill, one unit with a daily capacity of 100 tons of semi-Kraft for nine-point corrugating materials, the other with a daily capacity of 150 tons of Kraft for bleaching and converting into fine quality food containers. The paperboard mill will consist of one 160-inch Fourdrinier machine and one 136-inch cylinder machine.

ANNOUNCES KRAFT MILL

For West Sacramento, Calif.

K. K. NEWSOM, President and Engineer of newly formed Newsom Kraft Corp., with ambitious plans for big mill in West Sacramento, Calif.

Plans for the construction of a $14,000,000 kraft paperboard and wallboard plant in the West Sacramento, Calif., area were announced Dec. 5 by K. K. Newsom, president, engineer, and general manager of the recently formed Newsom Kraft Corp. of California.

The proposed plant, said Mr. Newsom, would be "one of the largest of its kind in the world," and will employ from 750 to 1,000 workers.

Said Mr. Newsom: "We expect to start construction next April, and production should be under way by summer or fall of 1949."

Mr. Newsom stated that the project will consist of three mills. One will turn out 500 tons of kraft board daily, another 500 tons of pulp, and a third 200,000 board feet of wallboard daily.

According to Mr. Newsom the enterprise will be financed by a $7,500,000 Reconstruction Finance Corp. loan, already granted, and with private capital. He said no stock will be offered to the public.

Mr. Newsom said: "Three engineering companies are now figuring on building the plant. No definite commitment as to which one will get the job has been made yet.

"Tentative plans are to use a 220-inch trim Pusey Jones fourdrinier machine in the kraft plant."

Mr. Newsom has been associated with the pulp and paper industry for the past 18 years, in engineering and sales promotion. He was with the old Pacific Straw Paper & Board Co., Longview, Wash., when Charles F. Schaub was president, and represented the company as salesman. Later he was associated in the East with International Paper Co., in a development company working on the manufacture of paper board for frozen food products. Mr. Newsom has also done engineering work in the moulding of paper products.

Mr. Newsom said that the project site would be along the Sacramento River, six miles north of Sacramento. He states that an option is held on 460 acres of land for the plant and for an additional 400 acres on which a separate concern will build a model townsite for employes.

Mr. Newsom states that the company has access to "3,000,000,000 feet of timber (equal to 6 million cords) located in northern California" for its pulpwood supply. The corporation plans to carry out a re-seeding program providing for perpetual cutting, and additional cutover lands would be acquired for this program.

PAPERMAKING CAPACITY

A postwar papermaking capacity increase of 3,258,860 tons annually in the United States is in the making, according to the American Paper and Pulp Association. Its figures follow:

	Tons
Capacity (Dec. 31, 1945)	20,282,050
Increases in:	
Paper	1,372,060
Paperboard	1,410,950
Building Board	475,850
Increases, 1946-48	3,258,860
Capacity (Dec. 31, 1948)	23,540,910

1947 Paperboard Will Total 9,270,000 Tons

Paperboard production in 1947 in the United States will be revealed as exceeding all previous years and profits also will undoubtedly exceed any previous year's, George E. Dyke, president of Robert Gair Inc., who was re-elected president of the National Paperboard Association, told that body at its annual meeting in New York, Nov. 13-14.

The 1947 board production was estimated at 9,270,000 tons, or 9.7% more than the record set in 1946.

W. H. Beckwith, vice president of Morris Paper Mills, Morris, Ill., was re-elected vice president of the association. Six companies joined the association, bringing its membership to a record high of 106 companies.

Power Source Arranged For New Kraft Mill

Pending completion of the transmission lines from the Elk River power plant of the Britsh Columbia Power Commission, Bloedel, Stewart & Welch, Ltd., will obtain some power from the Puntledge River plant of Canadian Collieries (Dunsmuir), Ltd., for its new kraft mill at Port Alberni, B. C.

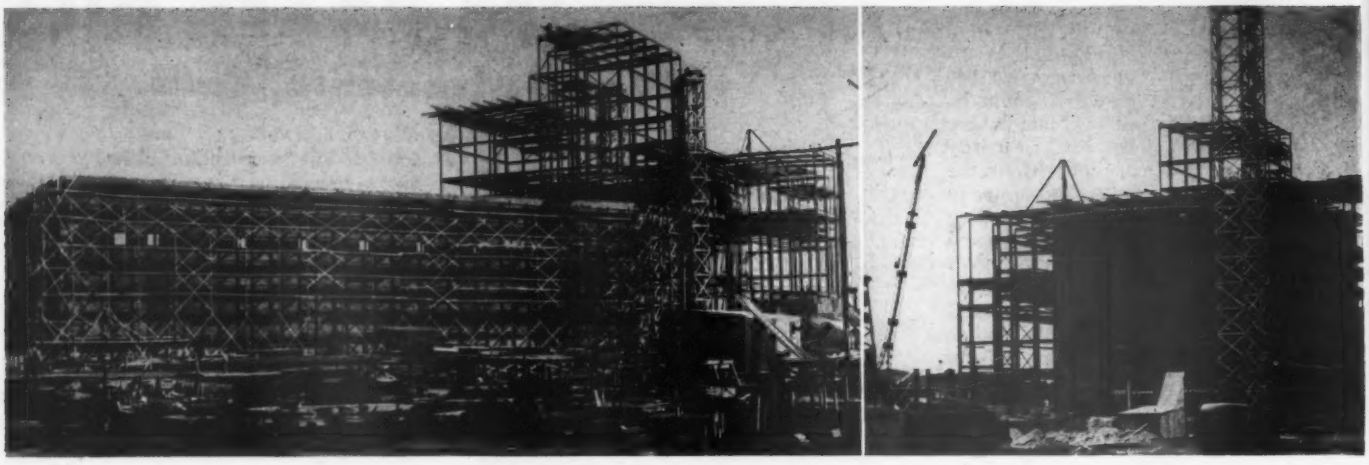
Puntledge River power will be carried temporarily over the new B. C. Power lines from Courtenay on the east coast of Vancouver Island.

It is hoped that permanent arrangements for power will be completed before the end of the year.

Clearing House for Purchases Proposed by Mill Executive

D. W. Ambridge, president of Abitibi Power & Paper Co., addressing a meeting of purchasing agents in Toronto recently, urged establishment of a clearing house to which industries in need of supplies could go and be told which supplier was least busy on the article wanted and in the best position to furnish it.

"The present method of buying, waiting and not getting the goods is beyond all reason" said Mr. Ambridge.



AT LEFT IS NEW LONGLAC pulp mill building under construction. At right is the power house.

NEW TOWN - - NEW MILL

Used to Be Just a "Whistle-Stop"

You may not see much of it from your railroad car as the Canadian Pacific mainliner streaks by — not yet anyway, but along a stretch of a mile or so east and west of Terrace Bay, Ontario, upwards of $40,000,000 is being spent on a combined pulp and power development, the biggest currently under way in Canada.

Terrace Bay is the site of Kimberly-Clark Corp.'s new bleached sulfate mill which is expected to go into production on a 300-ton-a-day basis early in 1949, and the Aguasabon River waterpower project which is designed to produce nearly 55,000 horsepower for the Ontario Hydro Commission. Major user of this energy will be the Kimberly-Clarke enterprise now under construction — a wholly owned subsidiary, LongLac Pulp & Paper Co., Ltd.

Probably nowhere in Canada at the present time is there such a concentration of brand-new industrial construction as **PULP & PAPER** has witnessed, at Terrace Bay, and the most notable feature of all the activity is the speed with which this section of the northern Ontario wilderness has been transformed into a busy community.

Less than two years ago, there was nothing at Terrace Bay, on the north shore of Lake Superior, about eight miles east of Schreiber, to indicate that one day there would be located there one of the largest and most modern of Canada's pulp mills. Foundation test holes were not yet being bored and plans for temporary camp buildings were only that.

Even the name Terrace Bay did not appear then on the railroad maps of Canada. The place actually was known as Black siding, and it represented no more than a whistle-stop. The change in name to Terrace Bay, derived from the nearby lake cove of that designation, did not come until construction had made considerable progress.

H. S. CRAIG, General Manager of LongLac Pulp & Paper Co., Ltd. He was born in Detroit, Mich.

Since then, magic has been at work in the region's forest. South of the C.P.R. tracks a townsite of startling beauty has been laid out, as different from the old-style factory town residential areas as you could ever imagine. Neat, comfortable, four, five and six-room dwellings in gay, contrasting colors have been built along curved, boulevarded streets. And the townsite's natural charm has been retained by the company's wise policy of keeping as many as possible of the original trees standing. The effect has been to give infant Terrace Bay townsite the cool, shady and settled atmosphere of a long-established town in summertime: the picturesque appearance of a Christmas card village in winter.

And more important than anything else to the LongLac Pulp & Paper Co. management and its people is the fact that Terrace Bay, with its planned and natural beauty and its up-to-date services, has become a mighty attractive place in which to live. Unlike a few other pulp manufacturing communities in Canada, Terrace Bay isn't going to be a town of drifters.

It's an added source of satisfaction that Terrace Bay was designed that way. When it was decided by Kimberly-Clark Corp. to build a big pulp mill on Lake Superior the management recognized that the chosen spot was relatively remote from settled areas and many pulp mills closer to the attractions of the big cities were competing for labor.

"If we're going to build a mill," the management decided, "let's make certain that when we hire men to run the mill they and their families will like Terrace Bay and want to stay with us."

Having set the program, construction was started, and first emphasis was placed —not on the modern and efficient mill that was eventually to sustain the town—but on the permanent residential aspects of the place. When the mill starts turning out pulp—probably in the winter of 1948-49—its employes and their families will already be proud of, and accustomed to living in one of Canada's newest model towns.

A Modern Mill

But while the town of Terrace Bay is important as an object lesson in industrial planning and as a sociological experiment, the big thing there is, of course, the pulp mill. There is no reason

THIS AIR VIEW shows LongLac Pulp & Paper Co. project (in foreground) in relation to Augasabon River which is in distance. At extreme top of picture is Lake Superior. The river is source of hydro-electric power for the mill.

to question that the pulp mill will be a worthy counterpart to the town. Certainly, parent company officials at Neenah, Wis., and the LongLac Pulp & Paper organization, at Toronto, as well as at Terrace Bay, have spared no effort to make the plant one of the most efficient on the continent.

Generally speaking, while the LongLac mill will incorporate many new process features, its operation will not represent a drastic departure from standard practice. Basically, it is designed to process pulpwood brought down the Aguasabon River and by other routes from the company's holdings adjacent to narrow, 60-mile long Long Lake and other lakes and rivers extending north through the Thunder Bay region towards the country traversed by the Canadian National Railway's Oba-Jellicoe line, and northward to the Albany River basin area.

Previous to the organization of the LongLac company, Kimberly-Clark Corp. operated Pulpwood Supply Co., Ltd., which drove logs down to Lake Superior near Terrace Bay, rafted them there and towed them over to nearby Slate Islands, where the pulpwood was loaded on barges and shipped across to the Kimberly-Clark mills at Kimberly, Wis. Pulpwood Supply Co. has now been merged with LongLac, and when the Terrace Bay mill is operating its bleached sulfate pulp will be exported to the parent company's several mills in the United States.

The LongLac project is part of an extensive expansion program of Kimberly-Clark Corp. and its subsidiaries first undertaken in 1944 in Canada and the United States. Main items in this program are:

EYE WITNESS STORY

During the past two or three years, readers of PULP & PAPER have had the opportunity to read the first exclusive stories on other new pulp and paper operations in Ontario — those at Marathon of Marathon Paper Mills of Canada, at Red Rock of Brompton Pulp & Paper Co., and at Espanola of KVP Co., Ltd. These mills were personally visited by PULP & PAPER, not only once but in some cases, two or three times, during the period of construction and at the startup of operations.

Here is the first comprehensive account of the LongLac Pulp & Paper Co. project at Terrace Bay, Ont., visited by an editor of this magazine this past fall, when the mill buildings were beginning to take shape, the townsite was preparing for its first winter and the Aguasabon power project was at its peak.

1. Construction by Kimberly-Clark Corp. of Canada, Ltd., a wholly owned subsidiary, of a plant at Kapuskasing, Ontario, for the manufacture of cellulose wadding to be sold in Canada.

2. An increase in cellulose wadding manufacturing facilities at the Lakeview mill, Neenah.

3. Construction of a paper mill and the increase of pulp manufacturing facilities at Niagara, Wis.

4. Acquisition of a plant at Memphis, Tenn., and the installation therein of machinery to manufacture cellulose wadding and convert the same into Kleenex facial tissues and Kotex sanitary napkins, and,

5. Construction of the bleached kraft mill at Terrace Bay for LongLac Pulp & Paper Co., the newly formed subsidiary.

This program contemplated increasing the daily pulp producing capacity of the corporation and its subsidiaries by 337 tons, or 57%. Book paper capacity increases were planned at 190 tons per day or 32%, while cellulose wadding increases were planned at 165 tons or 68%. The equipment necessary to convert the additional wadding to be manufactured in the United States was also included in the program.

In addition to the above, Kimberly-

HERE'S AGUASABON FALLS, with Slate Islands in the background, at the Lake Superior site of new LongLac (Kimberly-Clark) kraft pulp mill. The type of timber in the region is seen here.

THE MAP INDICATES LOCATION of Terrace Bay, Ont., site of LongLac Pulp & Paper Co.'s new 300-ton sulfate mill, in relation to Neenah, headquarters of the parent company, Kimberly-Clark Corp., and to other pulp and paper centers in northern Ontario—Fort William, where Great Lakes Paper Co. is planning expansion; Red Rock, where Brompton Pulp & Paper Co. is producing kraft; Marathon, where Marathon Paper Mills of Canada is now operating on a 300-ton basis in kraft production; Espanola, site of KVP Co.'s mill.

Clark will operate a proposed Coosa River newsprint mill to be built by Southern newspapers in Alabama, and K.-C. may acquire some pulp supply there.

The Kimberly-Clark of Canada plant at Kapuskasing, with a daily capacity of 30 tons of cellulose wadding was completed in June, 1945. Total cost of the other projects, now in various stages of completion, will run substantially past the $40-million mark and the Terrace Bay project represents more than half the corporation's total estimated expansion expenditure in Canada and the United States. It was obvious, of course, that changes in the over-all program might be made from time to time, and estimated cost and completion dates are necessarily subject to change because of program revision, variations in labor and material cost, delays incident to labor and material shortages, and other factors.

Orders for materials and supply for the Terrace Bay project at mid-July, 1947, had totalled about $10,000,000, and the company expects that by the end of 1947, 150 modern homes will have been completed in the townsite, and substantial progress made in construction of the mill buildings. Temporary housing for construction workers was one of the first jobs undertaken, and accommodation for 1,000 employes was provided in the so-called "upper camp" within three months last spring. The construction camp as well as the mill and auxiliary buildings are located north of the C.P.R.'s main line tracks; the townsite is to the south, much of it at least a mile away from the mill.

Power is to be purchased from the Ontario Hydro Commission, which plans to have its power plant on the Aguasabon ready for operation in ample time for the mill. Temporary power is at present being supplied from Cameron Falls on the Nipigon. When the new power plant is in use, it will have power lines extending as far west as the Lakehead cities of Fort William and Port Arthur, important pulp and paper manufacturing centers, as well as to LongLac.

Pulpwood will be obtained from timberland concessions formerly under lease to Pulpwood Supply Co., and from enlarged timber concessions, all of which are now under lease to the LongLac company from the province of Ontario and are expected to be a continuing source of supply.

In addition to 108,000 acres of timber holdings of a wholly owned Canadian subsidiary, Upper Canada Timber Co., Ltd., the corporation through its LongLac subsidiary has the cutting rights on 4,608,000 acres of timberland in Canada under Crown permits.

During the coming year LongLac will continue to be primarily a construction job, but even at this stage it is possible to gain a clear conception of the mill area's skyline. Prominent in these over-all aspects of planning were such Neenah headquarter men as C. W. Nelson, assistant vice president of Kimberly-Clark and presently its general manager in charge of expansion, and Walter H. Swanson, chief of staff in the corporation's operating department. Plans for the mills were

prepared by Bernard F. Smith, pulp division engineer of the corporation at Neenah, with Stadler, Hurter & Co. of Montreal acting in a consulting capacity.

Fraser Brace Engineering (Ontario) Ltd., are the general contractors for the mill buildings, with Canada Bridge Co. in charge of steel erection. Aggregates for the 250-ton concrete batching plant at the millsite were supplied by Armstrong Construction Co. The batching plant processes all concrete required for the entire project. Horton Steel Works built the 125-foot water tower with a capacity of 100,000 gallons. Townsite contractors, whose employes are also making the lower camp their headquarters, are North American Buildings, Ltd., which has its own prefabricating plant at Terrace Bay. Ontario Construction Co. provided the sewer facilities and waterlines and basements for the townsite.

Key Personnel

General manager of LongLac Pulp & Paper Co. is Hamilton S. Craig, Detroit-born and a graduate of University of Minnesota. He started with Kimberly-Clark Corp. as a draftsman and during Word War II was engaged in ordnance work. In 1945 he was appointed to head up the LongLac subsidiary during the construction period and he has been in charge of the operation ever since.

B. J. Donovan is special representative of the company, and is located at the Toronto office. Thad C. Epps is townsite manager at Terrace Bay and in charge of townsite development.

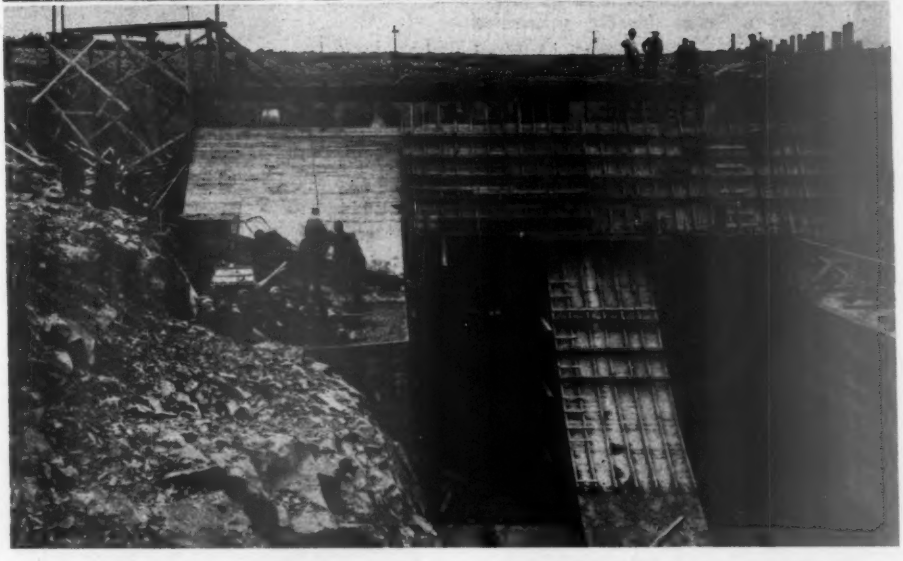
Resident engineer at Terrace Bay is D. L. Emerson, a native of Oxford, N. Y., who graduated in civil engineering from Northwestern University in 1940. He was resident engineer at Kapuskasing during the crepe wadding plant expansion and went to Terrace Bay in 1946.

Key man in the permanent operating setup is Andreas Christensen, recently appointed mill manager. He is a pulp mill executive of long experience in Europe, on the American west coast and in the east. Born in Norway, he spent a two-year apprenticeship in paper mills and studied at the Mechanical College in Porsgrund, Norway, graduating in chemical engineering. He spent two and a half years in Germany, specializing in pulp and paper manufacture.

In 1915 Mr. Christensen organized the control department of Minnesota & Ohio Paper Co. in International Falls and Fort Frances. He went to the Pacific coast in the days when the Whalen brothers were establishing mills in British Columbia, two of which later became a part of the B. C. Pulp & Paper Co. Mr. Christensen's first job was at Swanson Bay, where the mill has since been dismantled.

During World War I he served overseas in chemical warfare and returned in 1919 to Canada. After serving with Rhinelander Paper Co. and Rayonier, Inc., he joined B. C. Pulp & Paper Co. as technical director in Vancouver, B. C., and in 1940 he moved to Kapuskasing, where he was sulfite superintendent for Spruce Falls Power & Paper Co., Ltd.

SOME OF TOP EXECUTIVES at LongLac (left to right): **ANDREAS CHRISTENSEN**, Mill Manager, Norway-born but a veteran of many years experience in Pacific Coast and Middle West U. S. and Canadian mills; **D. L. EMERSON**, Resident Engineer, a Northwestern University graduate; **GORDON ROWANSON**, Production Superintendent, and **THAD C. EPPS**, Townsite Manager.



TOP VIEW — Air view of LongLac pulp mill construction at Terrace Bay, Ont.

LOWER VIEW—Aguasabon Dam and sluiceway under construction.

TOP OFFICERS OF LONGLAC PULP & PAPER CO. (left to right): COLA G. PARKER, President; ERNEST MAHLER, Executive Vice President; and C. H. SAGE, Vice President. These man have identical titles in Kimberly-Clark Corp., Neenah, Wis., their headquarters. Mr. Sage is also President of Spruce Falls Power & Paper Co., Kapuskasing, Ont. Mr. Mahler is Vice Pres. of that company. Mr. Sage has spent considerable time in Canada for the K-C organization.

He moved to Terrace Bay in September.

R. J. Shemanski was named controller for LongLac at the inception of the project. Heading up his early activity in Toronto, he had recently taken up residence at Terrace Bay.

Gordon Rowanson is to be production superintendent and W. W. Covington will be his assistant.

A. F. Buell is woodlands manager, and in charge of the river drives is Malcolm Spidell, one of the most colorful figures in the district who helped build the Alaska Highway and who likes to tell about the days when he used to catch lake trout by luring the fish close to the surface with the red tassels on his moccasions.

R. M. Schneble is assistant to the general manager; J. D. Hofman, purchasing agent; H. C. Laundy, personnel director, and M. R. Lemon, townsite engineer.

Fraser Brace, the general contractors, is represented at Terrace Bay by M. J. Green, general superintendent. Matt Green, who was born at the historic Bay of Chaleur on the St. Lawrence, is another story-teller. He recalls how, during railroad construction days, he used to hoist carcasses of beef to the top of a flag-pole to escape the bears, and how the bears climbed nearby trees, from which they pounced on the flag-pole, beef and all!

R. P. Rigby is manager at Terrace Bay for Ontario Construction Co., and Fred Carpenter, of North American Buildings, of Winnipeg.

The Ontario Hydro Commission job, although entirely independent in its direction, is in a sense closely integrated with the pulp mill undertaking. Veteran Charles Hayes is general superintendent for Hydro, and H. A. Johnson, resident engineer, with Jack Sterling, engineer in charge at the dam site.

Principal Equipment Selected Co.

Link-Belt Co. is providing the conveyors for the jackladder leading out of the mill pond to be formed by the flooding of a considerable area when the dam is built on the Aguasabon. Timber in this area has already been cut. There will eventually be six 25,000-cord stock piles.

There will be three Horton drum barkers and chippers of a new design. Sherbrooke (Impco) bleaching equipment is being installed in the early spring of 1948. Combustion Engineering Co. will provide the recovery unit and the Dorr Co. will make a substantial contribution to the causticizing plant. Foster Wheeler steam boilers are to be used. Allis-Chalmers will provide the lime kiln. Flakt dryer and Kamyr machines will be a part of the finishing equipment, and the whole operation will be fully controlled automatically.

When in full production the mill is expected to give permanent employment to about 400 men.

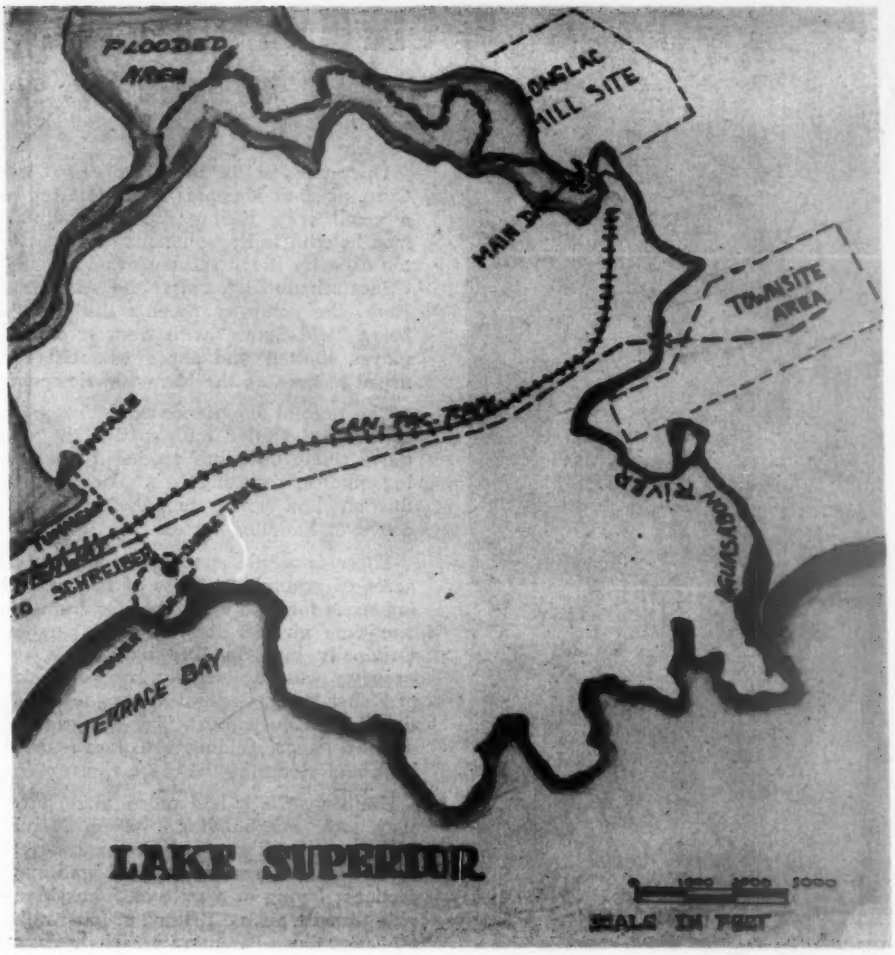
Water and Power

Less than a mile from the mill will be the Ontario Hydro plant and among the most interesting projects in this connection is the building of the dam and diversion sluiceway and a 3460-foot tunnel near the site of the power house, which will connect Lake Superior with what will soon be Terrace Lake (after the dam is built).

Another important engineering job directly related to the mill is the construction of the intake for mill supply, involving the laying of 1600 feet of 4-foot diameter reinforced concrete pipe from the clearwell on shore into Lake Superior. The length of each section of pipe is 18 feet, and its weight is 7.2 tons. At the intake end, the pipe is 50 to 60 feet deep in the water of Lake Superior. Water is taken in to the clearwell by gravity and it is then pumped uphill, the elevation over less than two miles being 300 feet. The pipe is being laid in 36-foot sections, two 18-foot lengths being coupled together on shore before being lowered to the lake bottom.

For the power development there will be two generators each of 22,500 kva, 13,800 volts, 257 r.p.m., or 27,500 h.p. There will be a transformer bank consisting of three 15,000 kva units. Hydro power house excavation involves 7,000 cubic yards, and the main dam excavation calls for removal of 236,000 cubic yards and laying of 62,-

TOP VIEW SHOWS new homes in new town of Terrace Bay. No two houses are alike. Our cover picture also shows some houses and indicates how the natural beauty of the forest setting has been preserved through a rigid program of tree conservation. Below, a view of the temporary but well-equipped schoolhouse. Principal Clarence Smith is in this picture. A permanent school will be built during summer of 1948. A modern new shopping center is under construction. Some stores—a Hudson's Bay Co. store has been doing business.



THIS MAP INDICATES THE ENGINEERING FEAT performed in construction of power facilities which serve the new LongLac Pulp & Paper Co., Kimberly-Clark bleached sulfate pulp mill. The site of the dam on the Aguasabon River is shown at right. A Manmade lake will be formed above the dam and to the left. There will be a large flooded area above the point marked "Intake" where a shift will be dug and water will be conducted through a half-mile tunnel under the highway and rail line to a power house on Lake Superior.

000 cubic yards of concrete. The Aguasabon lower storage basin when completed will consist of 2,625 acres, or 4.1 square miles.

Community Service

As the population of Terrace Bay has increased, community services have expanded. At the time of writing, the 1200-odd people who live at Terrace Bay enjoy such services as those provided by a postoffice, bank, barber shop and laundry depot. There is a modern 15-bed temporary hospital fully equipped and serviced by two doctors, three nurses and other staff.

Movies are shown five nights a week and total attendance since last November has been in excess of 25,000.

A weekly newspaper, Terrace Bay News, edited by F. O. Soughton of the public relations department, keeps everyone abreast of happenings around the project. Roman Catholic and Protestant church services are held regularly every Sunday. All transcontinental C.P.R. passenger trains now stop at Terrace Bay. Recently, bus service was established that connects Terrace Bay with Fort William and Port Arthur, 130 miles to the west. Against the threat of fire, a volunteer fire brigade with modern equipment has been organized under a full-time fire chief. Law enforcement is carried out by two full-time members of the Ontario provincial police who have been assigned to the project.

At the recreation center, in addition to movies, facilities are provided for billiards, table tennis, checkers, chess and other table games. In the center a snack bar is also operated. A 40x100-foot wing in the new Lower Camp Cafeteria unit has been developed as a dual purpose building for dances, movies and other activities during evening hours.

During the 1946-47 winter, school children were taken to school at Schreiber (12 miles away) by company vehicles. When the fall term rolled around, however, a school was opened at Terrace Bay.

SOME OF KEY PERSONNEL at Terrace Bay, Ont., photographed by PULP & PAPER:

Top row (left to right): F. O. Soughton, Personnel Dept.; G. A. Stewart, Assistant to General Mgr. Craig; H. A. Johnson, Resident Engineer on power project. Below Mr. Johnson is Jack Sterling, Engineer in charge at the dam. Lower row (l. to r.): W. W. Covington, Assistant Production Superintendent; Charles Hayes, Gen. Supt. on Aguasabon River power project, and M. J. Green, Gen. Supt. for the contractors. Mr. Green, a story teller from 'way back, told of hanging beef to flagpoles to keep them out of reach of bears—but the bears jumped from nearby trees to get meat (says Mr. Green).

Kimberly-Clark History

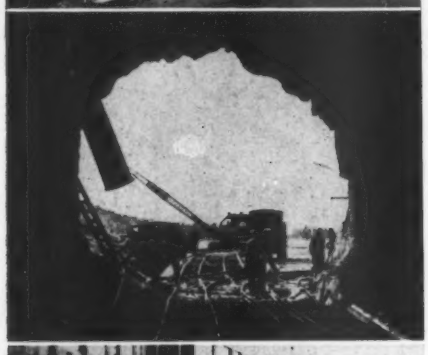
The LongLac project represents a logical development in the growth of one of the continent's most agressive pulp and paper enterprises. The story of Kimberly-Clark began in 1872 when four men entered a partnership—J. A. Kimberly, C. B. Clark, F. C. Shattuck and Havilah Babcock. Kimberly and Babcock had been partners in a general store and later owned a flour mill. Clark was a partner in a retail business and Shattuck had developed a wholesale business. The oldest of the quartet was 35. But they had saved enough or were able to borrow the necessary $30,000 to launch them into the business of making paper.

The company grew rapidly and the business soon became a leader in the Fox River Valley. In 1921 the company outgrew state lines and expanded from Wisconsin into New York and Canada. In 1928, when the last of the original partners died at the age of 90, Kimberly-Clark offered stock to the general public. The story since then has continued to be one of progress and expansion.

The company's major mills are located at Neenah, Wis.; Niagara, Wis.; Niagara Falls, N. Y.; Appleton, Wis.; Kimberly, Wis.; Memphis, Tenn.; Kapuskasing, and now at Terrace Bay.

President of Kimberly-Clark is Cola G. Parker, executive vice president is Ernst Mahler; Charles H. Sage, John R. Kimberly, H. G. Boon and W. H. Clifford are vice presidents; J. Frederick Hunt is secretary-treasurer; W. R. Kellett, R. W. Lyons, R. M. Watt and C. W. Nelson are assistant vice presidents; J. Leslie Sensenbrenner, assistant secretary-treasurer, and E. Davitt, comptroller.

Kimberly-Clark's basic idea in respect



TOP VIEW showing steel work for buildings at new LongLac mill at Terrace Bay, Ont., indicates the vast extent of this new pulp manufacturing operation.

Middle picture shows the tunnel constructed for the hydro-electric project serving the new mill. This tunnel is shown in drawing of power layout accompanying this article.

Lower view shows first waitresses arriving at Terrace Bay.

NEW MILL IN MEMPHIS

Works Up to Full Production

Operations at the new Kimberly-Clark Corp. plant at Memphis, Tenn., started on a small scale during the past summer months with full production from two 40-ton capacity Beloit cellulose wadding machines scheduled for after the year's end. Here, the company accents the unit as being "Mid-South" with transfer of employes limited and those essential few urged to take up the Memphis viewpoint.

The normal experience of the company is with a 4-storied mill, so that the new unit's single floor has produced interesting studies, resulting in a planned production line and complete palletized-conveyor handling system.

There is ample space at Memphis: 83 acres of ground; 26 acres of roof; parking space for 3500 cars inherited from the war-time aircraft shift of 5000 persons. Originally built in 1918 by Kelsey, the property was successively into possession of Fisher Body, General Motors, and then the U. S. Government. The Government doubled its size, adding an L that reached back and alongside the original structure.

Kimberly-Clark had much to do after they took the building over in March. Major undertakings included a concrete block wall separating the old and new sections; laying of a mile of Johns-Manville transite piping; drilling of four wells; of 4000 gallons per minute each; excavation of Memphis' greatest basement — 28 feet deep and of 20,000 cubic feet capacity, and raising of a 60 by 160-foot section of Monitor type roof to accommodate the paper machine.

In common with other paper mill projects, some difficulty was experienced with electric control instrument deliveries. The paper machines were ordered in 1946.

Initially, the Memphis plant was producing three sizes of Kleenex and odd-sized tissues. Kotex was received already packed, and shipped out in mixed cars, the movement approximating 3½ to 4 cars per day in a six-day week. A capacity of 50,000 cases of Kotex afforded ample space.

When all equipment has been installed a completely integrated operation will be sustained. There will be sufficient space to receive and store pulp for 28 days operation, with potential capacity for 45 days needs. A spur railroad track enters the building, affording car door level loading under weather free conditions. A six-car space is provided, with frequent switching service.

The company planned and apparently has been successful in attracting a desirable working personnel at the new unit. Part of this stems from the utter cleanliness of the converting operation and another from attractive accommodations.

The company furnishes (and launders) the work uniforms worn by the girls. When they check in, they have for their use a lounge and locker room on the second floor of the newer part of the structure. These rooms, as well as the excellent cafeteria on the ground floor, were formerly the offices of the aircraft plant. This results in noise quieting ceiling installations, and provision either for forced air circulation or air conditioning. The girls lounge has magazines.

Safety Organization

The company's safety work got off to a good start, scoring 552 days without lost time accident (894,418 safe man hours) up to September. This record includes men working on installation of equipment.

The safety organization starts with a steering committee composed of department superintendents, the safety man, and the union president. The mill manager is chairman. The work is divideded among three committees.

The accident investigating committee has a chairman named by the steering committee. Its membership includes a representative of management, two hourly paid employes, and the safety man. The committee looks into the how, and why of accidents and whether they can be avoided in future, interviewing both foreman and injured employe. A written report goes to the steering committee for action; this is standard practice throughout the corporation.

The safety publicity committee chairman names his own members, membership including management, two hourly employes and the safety man. The committee plans movies, signs, contests, slogans, etc.

The hazards committee membership has the same type of representation. This committee has two sub-committees that make inspections twice a month. The union is represented at every level in safety work.

The company's staff includes a hygienist who checks on housekeeping, quality; talks to new girl employes. A cafeteria is operated by Kimberly-Clark on a 24-hour basis and can accommodate a full crew.

C. G. Eubank is mill manager of this new K-C division. The eight department heads are as follows:

John Jack, converting superintendent.

John Peterson, plant engineer.

Richard Graef, industrial engineering superintendent.

A. M. Strautman, mill office superintendent.

A. D. Guentzel, personnel superintendent.

Doyle Fife, service operation superintendent.

John Rezba, technical superintendent.

Henry Hill, creped wadding manufacturing superintendent.

to LongLac was well expressed when the last annual report of the corporation was issued, as follows:

"Now, with the LongLac Pulp & Paper Co., Ltd., well underway, the corporation is once more pioneering on a magnitude which will help to open up and develop another virtually unexplored part of the country. This program embraces both modern townsite and industry. The community plan, now being developed, contemplates churches, schools, a hospital, police and fire station, public library, and a hotel, in addition to homes which are rapidly being built.

"We have confidence that Terrace Bay and its industry will be an outstanding asset to that section of the province and so to Ontario in general. Such confidence bears in mind the community of interest which exists for our communities on both sides of the border.

"The demand for Kimberly-Clark's diversified production and the corporation's proven ability to constantly improve upon end uses for wood and pulp should make our first quarter-century in Ontario the base for an enduring future."

Marshall Plan Outlined

INDUSTRY HEARS U. S. POLICY

Members of the AP&PA Advisory Council to the Department of Commerce met Dec. 1 with the Secretary of Commerce and other government officials in Washington, D. C.

Purpose of the meeting:

To state the current position and problems of the industry and discuss the future in terms of the new tariff rates, the Marshall plan, and inflationary tendencies. At the request of government officials, the meeting was top secret — but it is understood from reliable sources that the session went into the whole phase of the government's plan for the control of inflation. That this could mean controls on industry prices, and therefore on the pulp and paper industry, is no secret.

Industry representatives made the position of the industry crystal clear. They presented detailed figures on the industry's production record; they estimated new capacity (1946 to 1948) to be 2,659,000 tons exclusive of newsprint. They emphasized that these figures might be incomplete and that the new tonnage was probably nearer 3,000,000 tons, exclusive of Canada. They invited attention to accumulating inventories and went on record that perhaps the industry might in the future encounter difficulty in maintaining past operating ratios. The logic to be drawn from this — no controls will be necessary — and the industry is anxious to proceed with self-regulation. Nevertheless, they pulled no punches and stated that a rise in labor costs and other costs could force still higher prices.

Present for the industry were Reuben Robertson, Champion Paper & Fibre Co., who acted as chairman in lieu of Cola G. Parker, Kimberly-Clark Corp., who has been ill; D. K. Brown, Neenah Paper Co.; Leo Croy, Marathon Paper Co.; Willard Dixon, acting for Roy K. Ferguson, St. Regis Paper Co.; William Hulbert, International Paper Co.; Peter S. Paine, New York and Pennsylvania Co.; J. L. Riegel, Riegel Paper Co.; Downing P. Brown, acting on the committee for R. B. Stevens, Stevens and Thompson; Don Leslie, Hammermill Paper Co., and Amor Hollingsworth, Penebscot Chemical and Fibre Co.

Undersecretary William C. Foster, of Commerce, ran the meeting in the absence of the secretary who had been called "on the Hill" by Congress. Harold P. Macgowan, advisor of the trade agreement policy, Department of Commerce, discussed the Geneva Conference. Thomas C. Blaisdell, Jr., director of the office of International Trade, reviewed the Marshall Plan. The discussion of the Marshall plan appeared to indicate that it would include effort to rehabilitate the domestic paper industry of each country and would not, except possibly at the start, involve unusual exports of paper.

J. H. Barkmeier, assistant chief of the British Commonwealth Division, Department of Commerce, spoke on the Canadian pulpwood situation. Present in the discussion was W. L. Neubrech of the Forest Products Division of Commerce.

In an afternoon session, Alaska development was discussed by Lyle F. Watts, chief of the U. S. Forest Service, and William E. Warne, assistant secretary of the Department of Interior. Forester Watts outlined the process whereby the Alaska timber is being sold and appeared to be unmoved by recent developments on alleged Indian claims. Assistant Secretary Warne, speaking for Secretary Krug, spoke generally on government plans for Alaska. Pulpwood and pulp only were mentioned in the discussion, it is reported, and there was emphatic denial that government subsidies were being considered or ever had been considered with regard to an Alaska pulp industry.

Mexico Will Have Own Cigaret Paper Plant

Mexico is constructing its own cigaret paper plant, according to the Department of Commerce in Washington, D. C., and will start operations in 1948. The department said output would meet all Mexico's needs. All its cigaret paper is now imported, mostly from the U. S., and totaled $340,000 in value in 1946.

Hardwood Production To Start In Spring

Pacific Veneer division of Canadian Forest Products, Ltd., near New Westminster, B. C., will start production next spring of "hardboard" by the Chapman process.

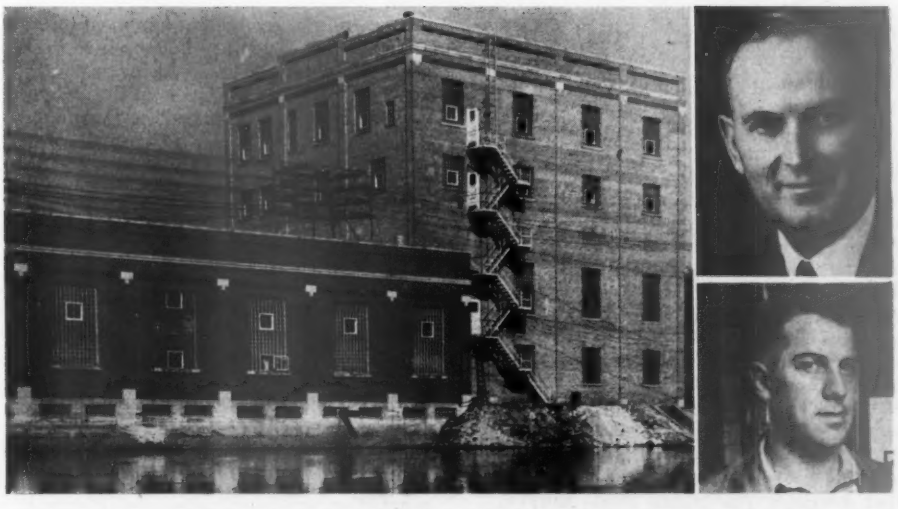
The plant is nearing completion, technical features being supervised in construction and arrangement by Ralph Chapman. Production will be on a royalty agreement, the operation being similar to that now under way at Corvallis, Ore.

Unusual feature of this new plant is that its raw material will be veneer chip waste from the Pacific Veneer fir and cedar plywood mill, which is the largest single unit in British Columbia's plywood industry, with a monthly output of 8,000,000 square feet of 3/8-inch plywood.

Production of the hardboard plant, which is expected to be in operation by March or April, will be 40,- to 50,000 square feet of 1/4-inch hardboard daily. The product is similar to masonite in general texture and consistency, with the structural strength of plywood, with a hard surface making it suitable for furniture construction, table tops, etc.

Vancouver Engineering Co. built the press required in the processing and most of the other mechanical units were built in British Columbia, with the exception of the Asplund defibrator, manufactured by American Defibrator, Inc.

NEW BLEACH PLANT IN WISCONSIN



This new 6-stage continuous flow kraft pulp bleach plant of Nekoosa-Edwards Paper Co., at its Nekoosa, Wis., mill was visited recently by PULP & PAPER. Central push-button controls in view of all the stages feature this modern plant, built according to Improved Paper Machinery Corp. design. It is in a 4-floor building just east of the old bleach plant. Water from a new Infilco filter plant is used and the combination are important factors in up-grading the quality of papers produced by Nepco.

Top right:: RICHARD A. NUGENT, Nekoosa Mill Operating Superintendent. Lower right: C. W. SURPRISON, who is in technical control of the new Bleach Plant.

EXPANSION IN SOUTH

Eight New Machines Will Soon be Rolling

Entering 1948, the expansion in southern production toward which so many companies have been straining had begun to materialize in a big way with not less than five new paper machines in operation along the Atlantic seaboard and three on the verge of turning over.

The five included those of: North Carolina Pulp Co. (a Kieckhefer Container Corp. subsidiary), Champion Paper & Fibre Co., Union Bag & Paper Corp., West Virginia Pulp & Paper Co., and the new southern division mill of Hudson Pulp & Paper Co., at Palatka, Fla.

Mills having paper machines from which production was impending in the new year are: Southern Paperboard Corp., Port Brunswick, Ga.; Macon Kraft Corp., at Macon, Ga.; and Container Corp. of America, at Fernandina, Fla. A little later, Sonoco Products Co., Hartsville, S. C., will bring a machine into production.

Beyond these nine new machines, there is the added production coming from newly installed and more efficient equipment; speeded up machines. Practically all mills along the coast have or will shortly enjoy more tonnage. These include the big International Paper Co.'s (world's largest) mill at Georgetown, S. C.; Brunswick Pulp & Paper Co., Brunswick, Ga.; St. Marys Kraft Co., St. Marys, Ga., and National Container Corp's mill at Jacksonville, Fla. The Ecusta Paper Co., recently announced plans for added production; and Riegel Paper Co.'s mill project at Acme, N. C., is expected to materialize.

Turning westward from the coast, the picture of increased production continues bright as without driving more than 300 miles one can pass two—possibly three—sites on which new large mills are yet to start up. The new Alabama Pulp & Paper Co. (St. Regis), which is situated across the road from Florida Pulp & Paper mill at Cantonment, Fla., will soon go into production.

In Alabama, ground is yet to be broken for the two-machine Coosa River Newsprint Co. mill, in which Kimberly-Clark Corp., holds an interest. Also in the state's center, the improvement program at Gulf States Paper Corp. is moving ahead. Headquarters for International Paper Co.'s Southern Kraft Division, are in Mobile, Ala., and the expansion-improvement program of their eight mills has been well aired. One phase of discussions at the Superintendents' convention at Asheville, N. C., in October touched on the extremely large equipment sizes currently involved in IP's program, as well as the added impetus given brown stock washing by that company. The Mobile Paper Mill Co., also at Mobile, is enlarging its plant, with another paper machine.

In Louisiana, in addition to the IP mill expansion at Bastrop and Springhill, there have been improvement programs at Gaylord Container Corp., at Southern Advance Bag & Paper Co., and Brown Paper Mill Co. The Calcasieu Paper Co., at Elizabeth, La., which was acquired by interests identified with the Jacksonville (Fla.) Paper Co., is expected to install a new 1500-foot-per-minute machine.

There is still some talk about another newsprint mill in the vicinity of DeRidder, La., but this is for the future. Also for the future is the talk of a new mill at Evadale, Texas, which will come when water is impounded in the East Texas rivers, but the new newsprint machine at Southland Paper Co., Lufkin, Texas, is very much in the present. Also definitely in fact is the expansion of the Champion Paper & Fibre Co.'s mill at Pasadena, near Houston, where a paper machine, formerly at Hamilton, Ohio, is now in operation. At Dallas, Fleming & Sons, Inc., are planning expansion.

In Tennessee, the new Kimberly-Clark Corp. cellulose wadding plant at Memphis, is getting into full production. It is also known that the O. B. Andrews Co., and the Tennessee Paper Mills, both in Chattanooga, are engaged in installation of new equipment.

There has been some talk of interest among Memphis hardwood lumber manufacturers in a possible mill that might take their cull logs (trees) and slabs, leaving them with only the better quality hardwoods grades to handle for their own special market.

The interest in wallboard manufacture in the South has been increasing largely due to the expanding utilization of wood in this field. This use means that up to a certain point in manufacture there are parallel or identical problems with the pulp and paper industry. At Natchez, Miss., the new Johns-Manville mill is making excellent progress. This is also true of the Armstrong Cork Co.'s mill at Macon, Ga. The National Gypsum Co. had its own improvement program at Mobile, Ala., and a new mill at Rotan, Texas. U. S. Gypsum, whose mill at Greenville, Miss., uses willow trees from the Mississippi river sandbars, islands and "battures," has a general expansion program. Masonite, at Laurel, Miss., is putting in new machinery; expanding production.

There is still in prospect the mill at New Iberia, La., which will produce wallboard from bagasse (sugar cane) for distribution by The Mengel Company.

SUPTS.' CHAIRMAN

LEE M. BAUER, who became Chairman of Southeastern Division of Superintendents Association as result of death of Harry Kruse. Mr. Bauer is Production Supervisor and Asst. Sec'y of Ecusta Paper Corp., Pisgah Forest, N. C. He was born in New York and educated in Brookline, Mass., and Boston schools. He spent considerable time in France between 1932 and 1937, visiting several cigaret mills there and gaining a foundation for his duties at the new Ecusta cigaret mill. He belongs to two North Carolina engineers' societies as well as TAPPI and the Supts.

Henderson's Son Find "Interest" in Minneapolis

Who said there isn't romance in the pulp and paper industry!

W. W. Henderson, 908 North Spring St., Pensacola, Fla., represents several equipment companies in the South, one of them being the Horton Manufacturing Co. of Minneapolis. His sons, J. A. ("Chic") and Richard ("Dick") now in business with him after their wartime term in the service, went to Minneapolis to learn how Horton clutches were made. Richard worked in the Horton machine shop for two weeks—staying longer than his brother. He not only learned about Horton clutches . . . .

Miss Sally Delaney, who is a featured speaker on the radio in Minneapolis and is director of publicity for the Nicolet Hotel there, is going to Pensacola for her Christmas holidays. She and Dick Henderson will then set the date for their marriage.

Ground Wood Board Plant in Georgia

A new fiber board plant, now near completion for Armstrong Cork Co. at Macon, Ga., will add a half million sq. ft. to the daily board capacity of Southern mills when it begins operation early in 1948.

Designed to produce "Temlok" from loblolly pine, the new mill includes a production and warehouse area of nearly five and a half acres.

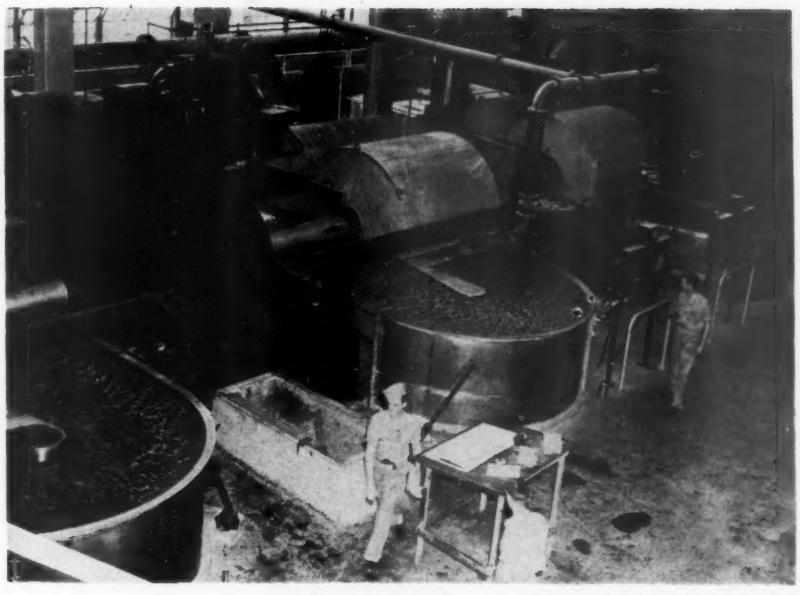
The plant is a one-story building with a basement under the pulp mill end to accommodate stock tanks and pumps. Pine will be run through slashers, the bark removed in a suspended type barking drum and then the barked logs will go to grinders.

Two sets of grinders will each consist of two grinders in tandem run by a synchronous motor. After grinding, the stock will be screened in centrifugal screens and then formed into board.

Board is formed in a continuous sheet and cut at the wet end. Board produced will vary in thickness from ⅜ to one inch. Daily production capacity will be the equivalent of 450,000 sq. ft. of ½-inch board.

FIFTH BIG MACHINE AT UNION BAG

PICTURE TAKEN FEW HOURS after start-up of Union Bag's new 220-inch Pusey & Jones machine. Some of these men had been on job steadily for 24 hours making ready. Left to right are J. R. Almand, Paper Mill Superintendent; M. L. Taylor, Manager, Technical Division; S. M. Bratton, Technical Advisor, Pusey & Jones Corp.; J. J. Ward, Construction Engineering Dept.; C. E. Hartford, Manager, Pulp and Paper Division; G. W. E. Nicholson, Vice President of Union Bag in charge of Manufacturing; R. T. Inman, Chief Construction Engineer; J. R. Lientz, Superintendent, Mill Technical Division; C. E. Youngchild, Pulp and Paper Consultant; B. W. Martin, General Supt., Pulp and Paper Division, and C. E. Jackson, Asst. Paper Mill Supt.



A hurricane wind and a 12-foot tide on the Savannah River were threatening to shut down portions of Union Bag & Paper Corp. at Savannah, Ga., last Oct. 15 but they couldn't prevent the start-up of that company's new No. 5 Pusey & Jones paper machine on that blustery morning.

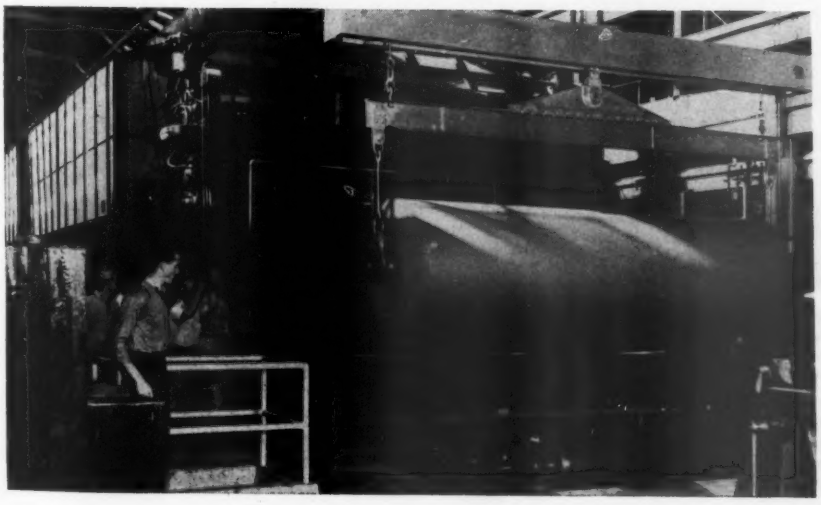
The "bringing in" of No. 5 was a notable event because this is reputedly the only plant in the world with so many large machines under one roof. All five machines make paper or board 220 inches wide. Union Bag makes 30,000,000 bags daily in addition to 5,000 tons of board, sheet and boxes per month. A new box factory was opened recently. This is, therefore, the largest integrated pulp and paper and converting operation in one locale in the world.

The new machine is nearly a block long and transforms wet wood pulp into a finished sheet of kraft in 45 seconds. It started up on mill wrapping paper. New E. D. Jones & Sons Jones-Bertram beaters were installed to serve the new machine.

G. W. E. Nicholson, former manager at Savannah and now vice president in charge of manufacturing for Union Bag in New York and former TAPPI president, witnessed the start up.

Resident manager at Union Bag in Savannah is T. T. Dunn.

Alexander Calder, president of the company, has offices in New York.



FIRST PICTURE of new E. D. Jones & Sons Co. Jones Bertram beaters at Union Bag (at upper left). Four of these beaters were installed, first of this type in a big Southern mill, they are of stainless steel with tile bottom. They prepare pulp for the new No. 5 machine.

DRY END of the new No. 5 Pusey & Jones machine at Union Bag (lower view).

Wisconsin Yeast Plant
WILL PRODUCE IN 1948

HERE ARE EXECUTIVES OF LAKE STATES YEAST CORP., formed by 12 Lake States sulfite mills, which is building plant to produce yeast from waste liquor at Rhinelander, Wis. (l. to r.): FOLKE BECKER, President (also Pres. of Rhinelander Paper Co.); STANTON MEAD, Vice Pres. (also Vice Pres. of Consolidated Water Power & Paper Co.), and JESSE M. HOLDERBY, Gen. Mgr. (his office is at 1101 East South River St., Appleton, Wis.). Lake States Yeast Corp. stockholders are eleven of larger Wisconsin mills and Detroit Sulphite Pulp & Paper Co.

A group of sulfite pulp mills in the Lake States are hopeful that a new commercial yeast producing plant, using about 50% of the mill effluent of Rhinelander Paper Co., in Rhinelander, Wis., will be in production by mid-1948.

The new plant is another substantial testimonial to the cooperative efforts which are being made by pulp and paper mills to find economic ways to dispose of, or utilize, their effluent. No responsible person is making any pre-performance claims regarding the new plant, but the eyes of the industry from coast to coast will be on it—watching to see whether this first commercial scale attempt at making a fodder yeast product for the farmer market will succeed. A lot depends, of course, on how the farmers react.

The Rhinelander mill has capacity for nearly 100 tons of pulp per day and if 50 tons are used in the yeast process, the resulting product probably will amount to about 4 tons of yeast per day. About $400,000 is being invested in the plant by a group of eleven Wisconsin sulfite mills—all of the sulfite mills in that state except a few small ones—and the Detroit Sulphite Pulp & Paper Co. at Detroit, Mich. These are substantially the group of mills which started the Wisconsin Sulte Group back in 1939 and which has sponsored a number of progressive measures hopefully aiming to clear up stream problems, etc.

Proportionately, their stream problem has not been as great in Wisconsin as the problems of the creameries and the pea canneries but the pulp mills are making one of the biggest expenditures ever made by any industry to solve it.

No policy has been set on how the new product will be marketed. If it makes good, possibly other mill yeast plants can be built—but only to the extent that the market will absorb the product, of course. Some surveys indicate the Pacific Northwest and the extreme Northeast of the U. S. are the only areas where there may be a demand for this fodder yeast, because in most other areas there is already plentiful supply of feed for poultry and animals.

This particular yeast, made from sulfite effluent, is not likely to be in demand, according to experts, for ruminating animals such as cattle and sheep. But it is hoped that there will be a good market for it among raisers of horses, hogs, dogs, foxes and poultry—and especially, for poultry. It is merely a supplementary diet

The process at Rhinelander will have similar features to the Waldhof (German) process with minor improvements, say the officials of the Wisconsin organization. The first complete illustrated article on this German process published on this side of the Atlantic appeared in the Jan. 1946 issue of **PULP & PAPER**, and was written by Dr. Edward G. Locke, of the U. S. Forest Service Experiment Station in Portland, Ore., who had then just returned from Germany where he was a member of the Joint Intelligence Objectives Agency of Allied Joint Chiefs of Staff. He traveled in Europe with Gil Dickerman, technical director Consolidated Water Power & Paper Co., and John McGovern, of the Forest Products Laboratory in Madison, Wis. (a limited number of reprints of this **PULP & PAPER** article are available on request).

A small pilot plant operation making this supplementary fodder yeast will be continued at the Interlake mill of Consolidated Water Power & Paper Co., in Appleton, Wis. The pilot was set up by the Lake States group of sulfite mills and it was a testing ground for the bigger operation at Rhinelander.

Jesse M. Holderby, of 1011 East South River St., Appleton, is general manager of the Lake States Yeast Corp. His office is actually rented space in the Institute of Paper Chemistry. He has been with the Lake States sulfite group since 1939 and prior to that was serving the Neenah-Menash, Wis., sewerage commission. M. A. Lefevre, formerly with Hoberg Paper Co.'s technical department, is resident in charge of the yeast plant at Rhinelander.

Officers of the Lake States Yeast Corp. are Folke Becker, president(he is president of Rhinelander Paper Co.); Stanton Mead, vice president (he is vice president and director of manufacturing for Consolidated's mill with his office in Wisconsin Rapids), and John Strange, secretary-treasurer (similar to his post in the Paper Institute).

RECENT NEW MEMBERS of the National Council for Stream Improvement included Mohawk Valley Paper Co., Simpson Logging Co., Pacific Paperboard Co., California Container Corp., Curtis Paper Co. and MacAndrews & Forbes Co.

AH-HA!! RINGERS! This is a picture of the so-called "Atlanta bowling team" which won the annual Nekoosa-Edwards Sales Conference bowling tournament in Port Edwards, Wis., with 905, 916 and 975 games (a staggering total of 2,796 pins). However, alert papermakers will spot at least three gentlemen here who aren't exactly habitues of Peachtree Street. The Atlanta office is a long way from the Wisconsin River and it probably had to take what it could get!

Left to right: JOHN E. ALEXANDER, President and General Mgr. of Nepco; KARL F. SCHMIDT; WARD ROSEBUSH, captain of the team; TRUMAN A. PASCOE, Tech. Dir. of Nepco (no, suh! He's no peach, either); CARL A. SCHIEBLER, and J. K. VANATTA (same goes for him). Winner last year but in last place this year was the Port Edwards team—Ken Podvin; Charles Polansky; Vice Pres. Chas. Reese; Chas. Surprison; Alson Cole and Tad R. Meyer.

A NEW LINK WITH COLLEGES

Coast TAPPI Sponsors Different Type of Meeting

A different type of meeting than this industry probably has ever held before will take place at Camas, Wash., on Friday, Jan. 16, under sponsorship of Pacific Coast TAPPI.

What started out to be just another run-of-the-mine TAPPI sectional dinner meeting has mushroomed into what promises to be a "red letter day" for the Pacific Coast industry. The theme of the meeting will be:

"Opportunities awaiting the young technical and engineering college graduate in the Pacific Coast pulp and paper industry."

Seven universities and colleges of the Pacific Northwest are being invited to send groups of their students and deans as guests. They will come from the University of Washington, University of Oregon, Washington State College, Oregon State College, University of Idaho, Reed College and the University of Portland. They will be largely chemical and chemical engineering students with a goodly number of mechanical engineers and forestry students, also.

Thus, the live-wire Pacific Coast TAPPI group, already widely known over the continent for developing original programs and activities, has come up with another new idea that possibly will have far-reaching significance and benefit to this entire industry.

A few of the leaders of Coast TAPPI got together in Tacoma, Wash., on Nov. 29 and decided that: (1) the pulp and paper industry was not keeping in close enough touch with promising young graduates of the universities and colleges:

(2) In the highly specialized world of today, it would be a genuine service to these young college students to help them decide as early as they can their future careers, and

3) The pulp and paper industry frankly has a great deal to offer college students and has an honest right to toot its horn a little bit.

The men who attended the Tacoma meeting made another important decision —that the program at Camas must be a forthright, intelligent presentation of what the industry offers without any theatricals or glamorizing. They felt the industry has plenty to offer without the need of dressing it up.

The TAPPI meeting will start at 2 p.m., with the usual paper written by a young mill employe which will be entered in the Shibley award contest. For the benefit of the college guests, Dr. Joseph McCarthy, the chairman, will explain how this award was the idea of the late "Cap" Shibley as a means of encouraging original thinking among young mill employes.

A panel presentation on the theme of the meeting will follow for the remainder of the afternoon, highlighting the progress made in assuring wood supply for this industry; the importance of pulp and paper in many end products and in world economy; the opportunities for a plant chemical engineer; for a plant mechanical engineer and for a research chemist or research chemical engineer.

GEORGE CROPPER (left), Resident Mgr. of Rayonier's Shelton, Wash., division since 1937, who has been appointed Resident Mgr. of the Grays Harbor Division, with supervisory control over Shelton. Eventually, he will move to Hoquiam on Grays Harbor.

WINSTON SCOTT (right) became one of the youngest Resident Managers in the industry, when at the age of 39 he was promoted from Asst. Res. Mgr. at Shelton to Res. Mgr. A few days later he reached his 40th birthday. Both Mr. Cropper and Mr. Scott attended the Univ. of Washington.

Young men in the Pacific Coast mills who have worked up to responsible positions after going into the industry from college, and who are only a few years older than the student guests, will lead this presentation.

Finally, Ray Hatch, research director of the Pulp Division, Weyerhaeuser Timber Co., will review important accomplishments in the industry resulting from research and "horizons of the future." At an evening dinner, the speaker will be Howard Morgan, manager of the Weyerhaeuser Pulp Division, who was formerly on the faculty at the Institute of Paper Chemistry, and, as manager and vice president of Munisin Paper Co., in Michigan, brought many young college students into the industry who now hold important positions.

Prior to the TAPPI meeting, the student guests and deans will tour the Crown Zellerbach mill at Camas, one of the biggest and most diversified operations on the continent, and will be guests at a luncheon.

Those who attended the Tacoma meeting and developed this idea for a day for students were William R. Barber (Crown Zellerbach), national vice president of TAPPI; Mr. Hatch; Dr. Robert Brown (Rayonier); N. W. Coster Soundview Pulp Co.); Erik Ekholm (Puget Sound Pulp & Timber Co.); Harold Wall (Longview Fibre Co.); Howard Graham and Dr. Walter Holzer (Crown Zellerbach), and Dr. McCarthy.

Morgan Speaks For Industry Understanding

Howard W. Morgan, manager, Pulp Division, Weyerhaeuser Timber Co., had been scheduled to talk about closer wood utilization in the pulp and paper industry at a recent Washington State Forestry Conference in Seattle. But he was equal to the occasion when the program makers surprised him by changing the title of his talk to "Saving the Pulp and Paper Industry." It is a "sound, growing industry" and "not in need of a rescue job at the moment," he said.

"With some of the largest mills now operating with sawmill refuse as their main source of wood supply; with two new mills being built to operate entirely on sawmill refuse or logging refuse, and with our industry, through its own pioneering and at the risk of large capital expenditures, developing a technical improvement such as hydraulic log barking and whole log chipping which annually saves sufficient wood to supply the largest bleached sulfite pulp mill in the Northwest with its entire requirements, and further with the industry in the other parts of the country utilizing wood supplies regardless of their size, shape or quality, as has been exemplified by the hardwood pulp industry in the New England states, in the Southern Pine and hardwood industry in the South, I feel that the industry should be given recognition for its sound contributions toward better utilization and to the return of more dollar income to the forest land holder thereby making it possible to practice better forest management.

"No, I would not plead for saving the pulp industry," he said. "I would merely plead for understanding the pulp industry and its contributions to an integrated wood utilization program that will establish the forest industries as sound, private industrial enterprises that will continue through the years to do the most effective job of handling forest lands."

New Wide Looms At Appleton Wire Works

On a recent visit at the Appleton Wire Works in Appleton, Wis., it was noted that several new wide wire looms were being built in the new weaving shop addition which was completed in 1946.

During the war it was impossible for Appleton Wire Works to add new equipment and the present building program is to make up for facilities in demand since 1940. The new looms, designed by the company's own staff, will meet needs brought about by recent installations of new and wider paper machines in the United States. The company has acquired adjacent properties for further expansion as it may be required.

William E. Buchanan is president of Appleton Wire Works.

SIMPSON SHOWS WAY

Less Trees Make More Products

An interesting demonstration of forest conservation and closer wood utilization is taking place today on the Olympic Peninsula.

Simpson Logging Co. of Shelton and McCleary, Wash., has revamped many operations from tree to finished product, and this is what has been accomplished:

1. Only two trees are felled today where three trees were formerly cut down.

2. Even with this reduced drain on the forests, about 35% more building material is being produced.

This is no longer an experiment—it has become in just a few months a commercially successful, daily routine operation.

The key unit in this development is a modern, up-to-the-minute Woodfiber Division which is producing insulation board products in a new plant at Shelton, Wash. —insulation building board, roof insulation, decorative tile board, acoustical tile, sheathing, insulation lath and plank.

Back in the woods, the Simpson crews are logging clean—cleaning up broken wood, old wood, even trees that have been on the ground 100 years but are only partially decayed.

Seed trees are being left to restock the cutover lands. In some areas seedlings are being planted to insure good reforestation In certain tracts selective logging practices are employed. Every effort is being made to protect forest growth. It is estimated that by cutting less than 90 to 100 million feet (200,000 cords) annually in the next century, drain and growth will be balanced.

The two Simpson sawmills on the flats of Oakland Bay are sending the wood they formerly used for hogged fuel to the board plant. And from the Simpson plywood plant several miles away at McCleary come box-car loads of more chips—these made from the sapwood outer trimmings of plywood peeler blocks. Eventually the cores of plywood blocks will be used, too, and Simpson Logging Co. also is counting on using wood slabs from smaller nearby independent sawmill operations and wood salvage cleaned up by independent loggers.

HERE'S SIMPSON LOGGING CO.'s new Woodfiber Division in Shelton, Wash. It is a continuous flow operation all on one level, as described in this article, producing insulating board. In left background can be seen the 360 ft. high stack carrying off smoke and gases from the Rayonier ammonia base sulfate waste liquor disposal plant at an elevation 535 feet above sea level.

CARL J. MACKE, Vice President in Charge of Development, who directed extensive research which preceded building of Simpson's board mill and who now heads up operations.

The two Simpson sawmills are cutting 300,000 board feet a day of lumber (in the lingo of other regions of the continent that would be equal to 600 cords). Two Simpson plywood plants are cutting about 150,000 feet per day. A door factory is still making about 3,000 doors a day.

"Something Has Been Added"

But to these related producers of building material "something has been added"—as the familiar radio commercial goes. That something is up to 300,000 board feet daily of insulation building board products.

It has been added without taking a sliver of wood away from anything else. In fact, the board mill is using fir almost entirely which means it is not encroaching on the hemlock or spruce "woodpiles" of the Far West, which have been the basis for the existing pulp and paper industries of that region. Second growth and salvaged fir of the Pacific Coast has now become the balance wheel for putting pulp and paper industries of that region on a permanent footing, being the material justifying current expansion in products from kraft pulp and paper to mechanically pulped products.

Several years of research is behind this complete re-orienting of the Simpson industries from tree to finished products—and especially, of this new Woodfiber Division. Intensive research began over two years ago with Carl J. Macke, vice-president, in charge.

EXECUTIVES OF WOODFIBER DIVISION of Simpson Logging Co. (left to right): ARTHUR WALTON, Assistant General Manager under Mr. Macke; OLIVER ASHFORD, Assistant Director of Engineering; MARION SMITH, Director of Research; WILLIAM McKENZIE, Director of Engineering; STEVE VIGER, General Supt.; CHARLES WALTON, Asst. Gen. Supt., and ERNEST THIELE, Finishing Supt.

PHOTO AT LEFT shows kind of wood being used in Simpson Logging Co.'s new Wood Fiber Division which is adding 35 per cent to building materials produced by that company while cutting only two trees where three were formerly cut down. These are sawmill ends and trimmings.

Photo at right shows Merrick Scale Manufacturing Co.'s Weightometer used to compute production charges by weighing wet chips. Size and quality of chips are important in this process of making coated insulation board. Link-Belt Co. provided the chip belt shown in lower part of picture.

A Pioneering Venture

It is well to note here, also, that this is an accomplishment in forest conservation and closer wood utilization by a private enterprise — an accomplishment which by its very nature could only have been accomplished by private industry. Simpson Logging Co. now has invested millions and tossed its hat into the ring, for better or worse, in a highly competitive phase of the building materials industry.

The extent to which Simpson Logging Co. took the usual risks of the industrial pioneer, and some unusual ones, too, is realized when it is remembered that only one other company was using Pacific Coast wood for this purpose—in fact, it was the only company west of Minnesota doing so. Their process, fundamentally different than the one adopted by Simpson, was very secret for many years and this is only mentioned here to emphasize that this is something no public agency could possibly become involved in because it meant development of a process which could not succeed if it were public property. It is far removed from any theoretical approach to forest or wood use.

Mr. Macke and his assistants have traveled many thousand miles at home and abroad to learn the latest developments in wood production and wood utilization.

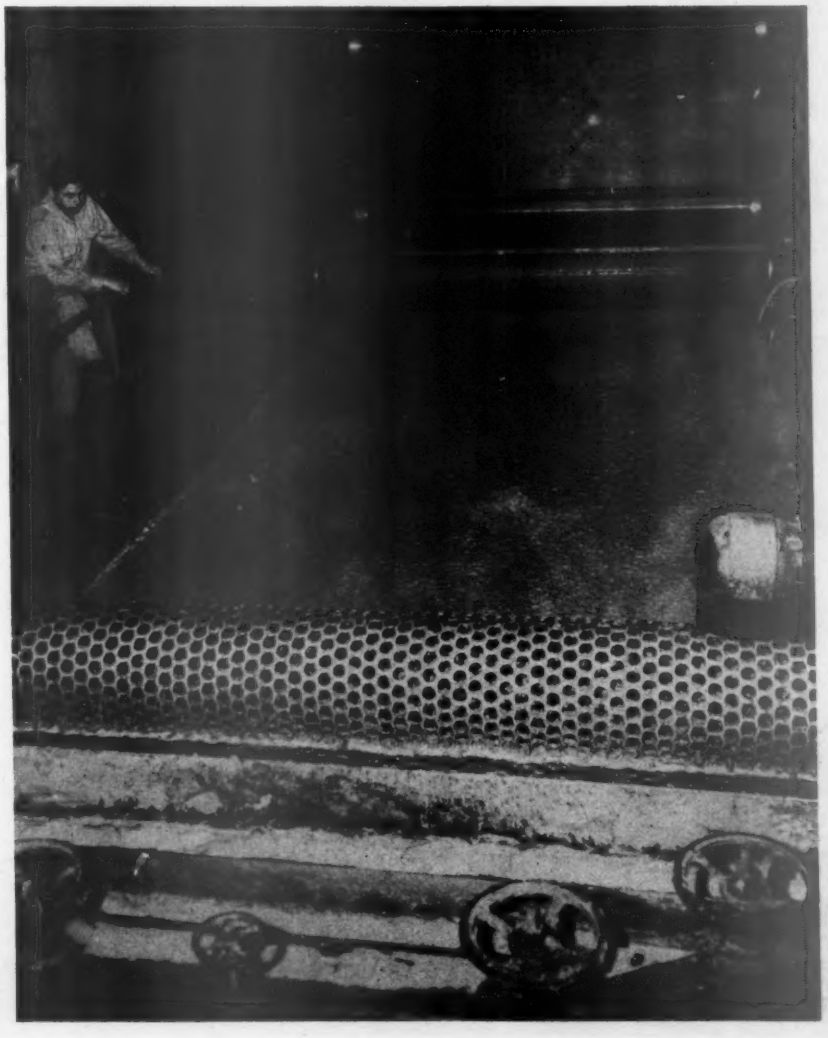
Expansion Is Possibility

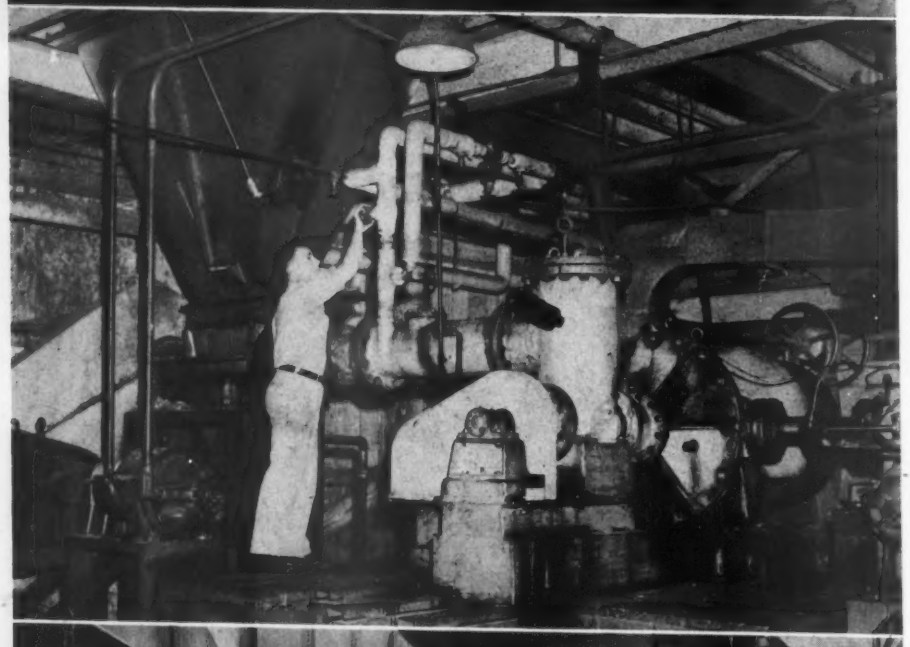
It is contemplated that the Woodfiber Division can expand and increase its products providing this is justified by the market and by the increase in its supply of raw material— forest thinnings, salvaged wood, slabs, mill ends and other such material.

Three chip plants are processing the wood for the Insulation Board plant. One is at McCleary, which was on its way to becoming a "ghost town" until the new Simpson developments assured its future permanency. As previously stated, the sapwood trimmed from plywood peeler blocks is chipped here and eventually the peeler cores also will be used. Eventually, 20% of the raw material for the Woodfiber Division will come from this chip plant which has a new Sumner Iron Works 66-inch chipper especially designed for cutting veneer trims.

At Shelton there are two more chip plants alongside the board plant. Here, one of the plants is owned by Rayonier Inc. and chips wood trimmings and slabs from Simpson's Sawmill No. 1. For several years this chip plant has been supplying the Rayonier sulfite pulp mill at Shelton.

HERE IS VIEW OF DOWNINGTOWN MFG. CO Fourdrinier section made for the new board machine at Simpson Logging Co.'s new board mill in Shelton, Wash. An Appleton Wire Works (Appleton, Wis.) brased seam wire 113 inches wide and 54 feet long is used. It is an unusual wire section because this Fourdrinier wire runs all the way through the press section seen in the background of the picture.





THESE ARE THREE STEPS IN PREPARATION OF PULP: Top View: Stainless steel-lined Babcock & Wilcox rotary digesters of 600 cu. ft. capacity each—three of them—which soften chips in steam.

Middle View: A portion of the chips instead of going to the B & W digesters is processed in this Asplund Size C Defibrator which was supplied by American Defibrator Co., and is patented by Arne Asplund of Sweden, a recent visitor at the Simpson mill.

Lower View: Here is row of Bauer Bros. No. 185 type Pulpers, made by that company at Springfield, O., where laboratory work was done that assisted Simpson Logging Co. in the development of its processes. These Bauer Pulpers are continuously fed from overhead by chips from the B & W digesters. It is the right combination of chips treated in the Asplund and Bauer machines which gives Simpson its new building board products.

There are no chemicals used in these cooking or defibering processes, so that any stream effluent problem is thus eliminated.

Now, Simpson Logging Co. is leasing the chip plant for one shift—the day shift.

A new chip plant has been built in connection with Sawmill No. 2. Larger fir logs and much older fir goes through this mill averaging 300 years old and some of it up to 600 years of age. Here a new six-knife 66-inch Sumner chipper has been installed. At Sawmill No. 1 is a four-blade Sumner 66-inch chipper.

In these plants, slasher saws still break the wood slabs down to 4-ft. lengths just as they did when this wood was used as hogged fuel. It may be advisable to continue this breakdown, instead of using longer lengths as it permits easier disposal of decayed pieces from the salvage logging.

An Allis-Chalmers four-nozzle hydraulic slab barker (not the roundwood barker familiar to eastern paper mills). nas been installed in the new chip plant and is used intermittently, as needed, to debark slab wood. Slabs are fed through it, flat surface down, on a chain feed, with four nozzles over the slab. Water pressure is 750 pounds per square inch at the nozzles and is fed at the rate of 400 gallons per minute.

A Link-Belt 24-inch rubber conveyor takes chips to storage at the board mill and there is considerable Link-Belt chain used in the new chip plant. Chips from the McCleary mill are fed into the same storage from railroad cars.

A Merrick Weightometer weighs wet chips coming to storage to compute production charges. There is a great deal of attention given to chip dimension and quality, just as in a paper pulp or other mill. They are inspected for size. Moisture samples are taken and unit weights are calculated for density.

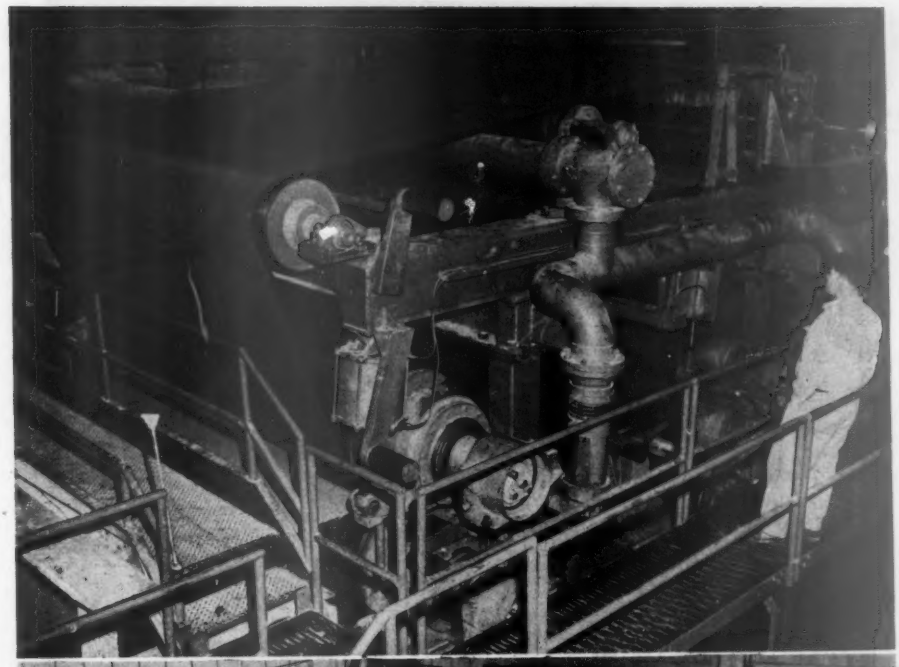
In the chipping of fir mill ends and other mill trimmings it is difficult to maintain uniform chip size. Knife sharpness and bed knife setting must be watched closely because of the smaller size wood pieces being chipped. Hard chromium steel knives are being used successfully. More care must be taken with knives, apparently, than in many hemlock pulp mills which use larger slabs or logs.

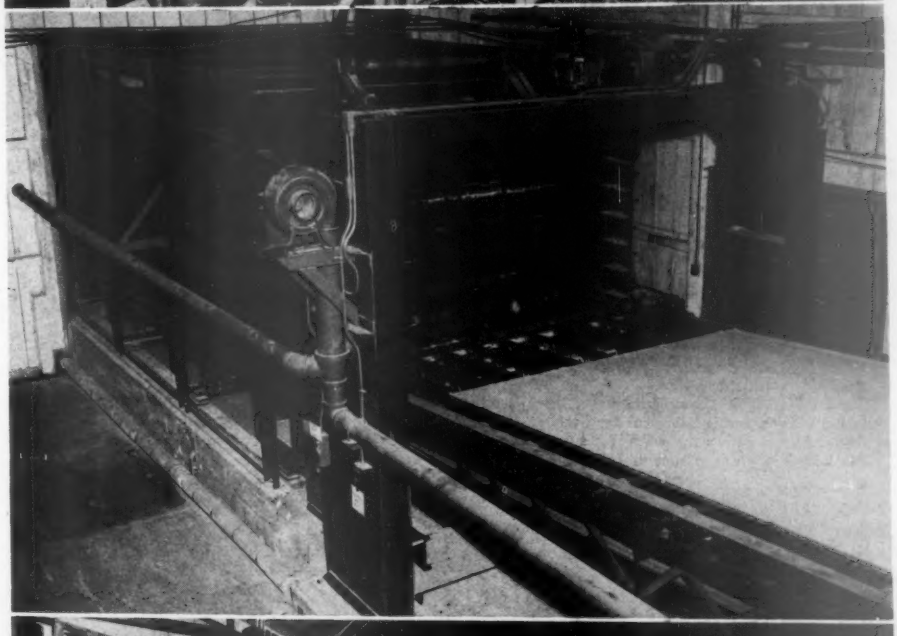
The wooden frame chip storage unit holds 350 units of chips. It has a somewhat unorthodox feeding system away from its

FURTHER STEPS IN PRODUCTION of new insulation board at Simpson Logging Co. in Shelton, Wash. Top view shows Downingtown Mfg. press section of four suction presses (a discussion of suction presses by a Downingtown engineer follows this article). This press section follows the Fourdrinier section shown in another picture.

Middle View: Here is board from press section, cut to length, traveling over speeded-up tipple section which feeds the boards into the eight sections of the Coe dryer—automatically moving from one section to the other. The article describes how this is done.

Lower View: The 8-deck 380-foot long Coe dryer.





two hopper bottoms. Steel apron chains with steel drag flights feed out onto a supply belt leading to digesters.

Flow In Pulp Preparation

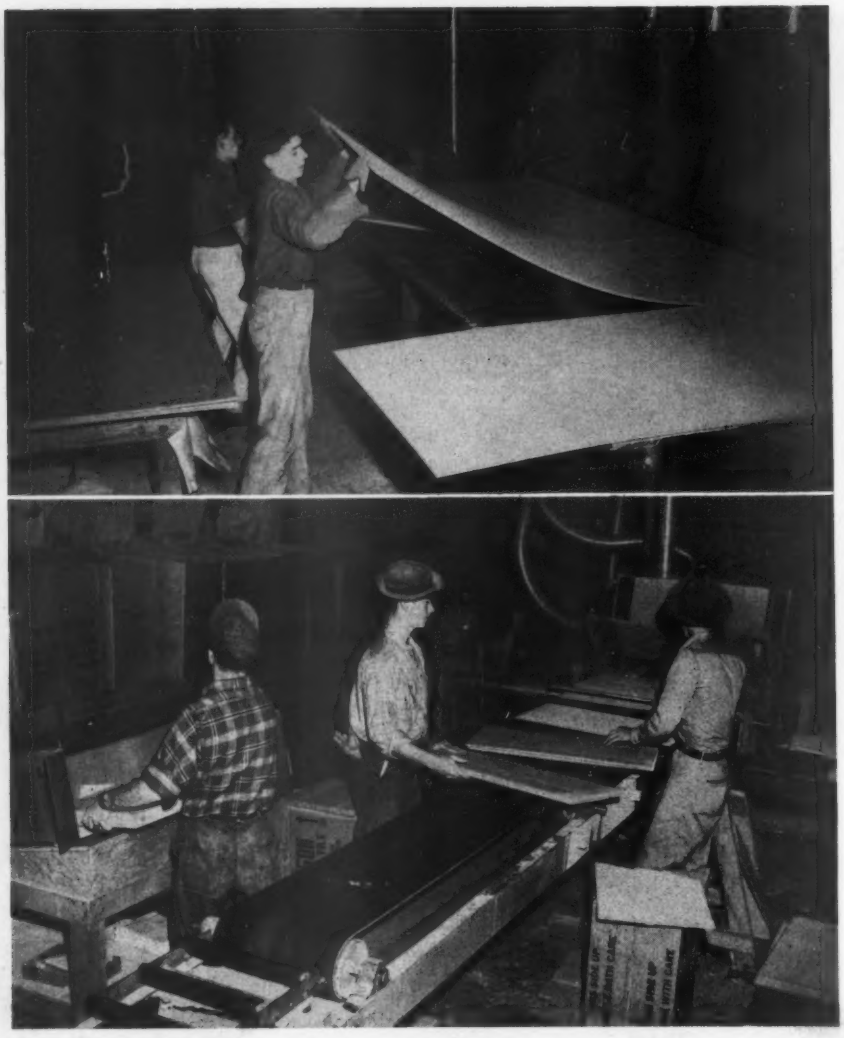
Here follows the flow of operations in the board mill:

A cross flight conveyor carries chips to an Asplund Size C Defiberator and to three stainless steel lined Babcock & Wilcox rotary digesters. Only a small portion of the chips go to the Asplund machine which provides a certain percentage of longer fibered stock that is credited with given the the final product insulation and strength. Arne Asplund, the Swedish inventor of this machine, recently made a visit to the Shelton plant to see it in operation. Many in this industry are familiar with his machine, which has a screw feed and defibrates chips under steam pressure between a rotating disc and a stationary disc. The machine is manufactured in the United States, and is supplied by American Defibrator Co. of New York.

The B&W digesters have capacity of 600 cubic feet of chips each and the chips are merely softened in steam. Hot chips are dumped into stainless steel bottom pits and screw conveyors convey them into Bauer Bros. pulpers. A bucket elevator and specially designed conveyor over the Bauers make this a continuous process, the "overs" of hot chips going back to the screw pits under the digesters and are contiuously fed back to the Bauers.

These are the No. 185 type Bauer Pulper made by that company in Springfield, Ohio. It is a different process than the Asplund Defibrator in that hot water is used instead of steam; there is no pressure used and both discs are revolving. In the Bauer are corrugated discs and different designs of corrugation are available from the company. The temperature of the water and the quantity of chips fed to the machine governs the freeness of the product. Generally each Bauer Pulper will produce around twelve tons per day of fiber. GE motors drive the Bauers.

The operation of the Bauers permit products of different freenesses. Thus there are four different stocks blended in a blending box, its four feed pipes leading from the Asplund, from the Bauers and from the broke box. The blended stock is fed to a decker which takes out water and reduces consistency, then to



THESE TWO VIEWS shows just two of the operations in the finishing department of Simpson board mill. In top view board is being cut for packaging. Different sizes of products are made, as explained in this article. Below, shows the smaller acoustical or decorative tile board on production line for packaging. This board is given a second coat of paint.

decker chest and machine chest and finally is pumped to a headbox some 40 feet above the machine.

The chests under the Asplund and Bauer Pulpers are tile-lined and built by Stebbins Engineering Corp. of Seattle. Shartle Bros. agitators are used. The decker chest and machine chest are of wooden stave construction.

It is significant that no chemicals are used in any of the cooking or defibering processes and therefore no chemicals are going out into Oakland Bay from this plant, thus eliminating any liquor effluent problem. In fact, the manufacturing process is virtually a closed system and everything has been done to eliminate pollution.

Between the decker stage and the headbox, three important chemicals are added which enhance the quality and durability of the insulation board products. Dowicide, a chemical produced by Dow Chemical Co. which makes the board termite-proof and fungus-proof is fed into the decker. Wax size, or other size that may be used, is fed in the intake side of the decker pump. Alum, for setting the size and fungicide is run into the suction or intake side of the machine pump on the way up to the headbox.

Board Machine and Dryer

Unlike in a paper mill, there are really two headboxes. For identifying purposes, the staff calls the one which is high above the machine Headbox No. 2 and the one on the machine Headbox No. 1. Stock is gravity-fed to the Downingtown Fourdrinier machine. Its 113-inch wide wire, which makes an 8-ft. wide board, is unorthodox in that it is continuous from headbox through the press section of four suction presses and is 95½ feet long. A top wire is used over the presses instead of the customary felt and this wire is 113 inches by 54 feet. An Appleton Wire Works brased seam wire was being used when **PULP & PAPER** visited the plant but wires of different meshes and seams were still being used.

All suction presses were also manufactured by Downingtown (an article in this issue on page 44 discusses rolls for suction presses).

Push button, closely adjusted controls operate the board machine and sectional GE drives serve it.

Coating is fed through a nozzle by gravity to the board after it comes out of the press section. It is sprayed on evenly much in the manner of a printing press by a rubber-covered 8-inch diameter roll fabricated by Griffith Rubber Co. of Portland, Oregon.

Up to this point, all the steps and processes are fairly recognizable to the pulp and paper maker. But from here on, it may be said to more closely resemble the operations of a plywood plant.

After the coating comes the so-called tipple section and then the 385-foot long, 8-deck Coe dryer.

The Downingtown machine may run at 20 to 40 feet a minute, but the tipple section will operate considerably faster. A series of switches are tripped as the board passes over them, changing speeds and starting saws that cut the board into lengths and trim it, and finally feed each sheet into the dryer, one to each of the eight decks and feeding automatically to each deck from bottom to top and back to the bottom deck again.

Right after the presses, the trim saws cut the board to 8 ft. 4 inches width, the four inches being allowed fro shrinkage in the Coe dryer. When the sheet reaches a certain point, a saw cuts it to 16 ft. 4 inches length. Here again the 4 inches is for shrinkage. As the sheet is continually moving, the saw crosses it diagonally in making the cut, operating automatically and with precise control. When the cut is complete, the saw hits a switch and throws the tipple into higher speed to carry away the cut sheet.

Leaving the tipple, the tail end of the sheet throws a switch which automatically raises the tipple to position to feed the next dryer deck.

In the finishing room there are a number of processes. For insulation board, the sheets are cut into 4 x 8-ft. panels. A second coat of paint is sprayed on the board which is used for acoustical or decorative tile. Some of the latter are 16 x 32 inches; others 12 x 12 inches and tile thicknesses of ½, ⅝ and ¾-inch sizes are made. All tile is packed in paperboard containers supplied by Container Corp. of America's recently acquired converting plant in Seattle. Insulation board and roof insulation is wrapped in kraft paper packages. The roof insulation comes in two sizes, 22 x 48 and 24 x 48 inches.

Box cars load up at the end of the long, one-floor plant. It is important to remember that in this insulation board field, the manufacturer must absorb all shipping costs. Thus in the West, the Shelton product has shipping cost advantages over products made east of the Mississippi.

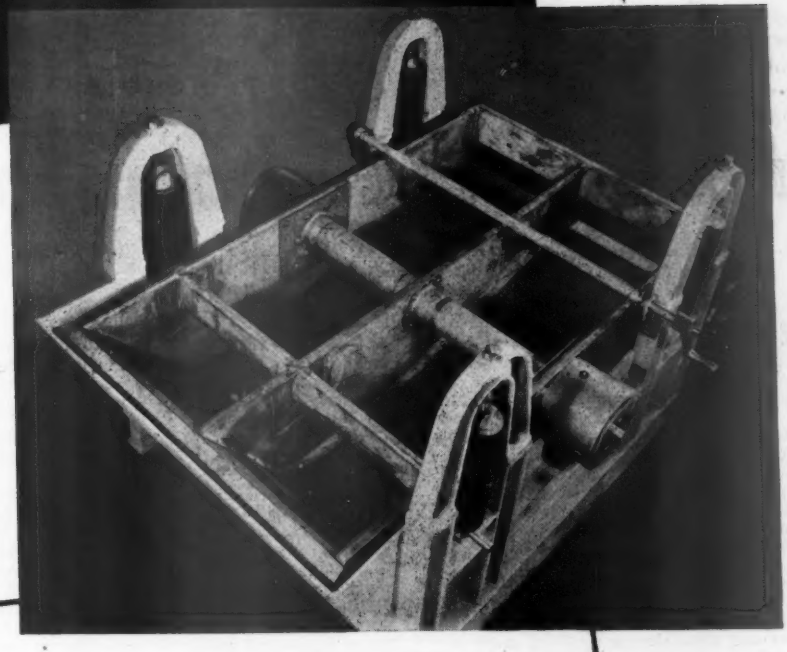
There are now 12 distributors of Simpson insulation board products in Washington, Oregon, Idaho, California, Utah, Colorado, Wyoming, Montana, Nevada, Arizona and New Mexico. They report the structural strength, paint color, tapestry-like finish and other qualities of the products are being well received.

Mr. Macke, as stated previously, is general manager of all the Woodfiber Division operations with Arthur Walton as his assistant. William McKenzie heads up

TAKES OUT THE KNOTS BUT NOT THE FIBRES

Bird's Jonsson Screen removes the knots clean and whole but there's virtually no fibre to be found in the tailings.

For clean pulp and lots of it at low cost there's nothing to equal the Jonsson Screen.



IDEAL FOR
KNOTTING AHEAD OF BROWN STOCK WASHERS

The Jonsson Screen delivers stock to the washers free of knots and chips, assuring better vacuum and increased black liquor recovery. It handles any consistency from 1.3 to 2.25%. It turns out as much as 150 tons per day.

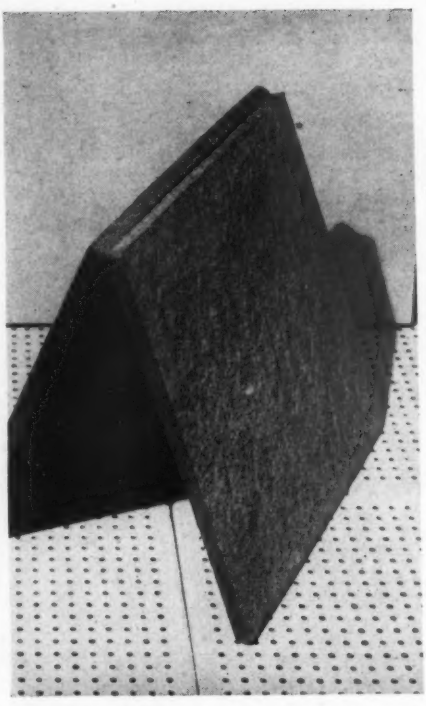
BIRD MACHINE COMPANY

SOUTH WALPOLE • MASSACHUSETTS

engineering and Marion Smith, research. Oliver Ashford is assistant director of engineering.

Other executives in operations: Steve Viger, general superintendent; Charles Walton, assistant general superintendent; Hobson Richards, day superintendent; Ernest Thiele, finishing superintendent; Rine Miller, Robert Evans and Woodrow Johnson, shift superintendents, and Paul Marshall, personnel supervisor. These men generally have had experience in pulp and paper making in various mills —Art Walton and Mr. Viger were with Rayonier in Shelton; Charles Walton at the Fernandina, Fla. mill and Mr. Richards hails from the technically distinguished Munising Paper Co. in Michigan. Mr. Smith was formerly with the Philip Carey Mfg. Co. in Ohio and Mr. Ashford was with Rayonier.

Chris H. Kreienbaum is president and general manager of Simpson Logging Co.; William G. Reed is chairman of the board; George L. Drake is vice president in charge of logging operations; S. A. Hatcher is vice president in charge of the lumber division, and R. E. Seeley is vice president in charge of sales.



HERE ARE SAMPLES of Simpson insulation board products. The products are described in the accompanying article.

SUCTION ROLL OF TODAY

By H. C. Merritt

Chief Engineer at Downingtown Manuf. Co. (talk given at TAPPI Engineers' Conference in Philadelphia).

In appraising today's suction roll it is well to consider the history of its development. The idea is old, patents dating back from 15 to 16 years include the basic elements of modern design. It did not reach a place of importance until comparatively recent years for two reasons. First, the operating speeds were so moderate that plain rolls filled most requirements satisfactorily, and second, availability of materials and manufacturing methods hampered its development.

With the increase of machine speeds came an increase in desirability of suction rolls and a corresponding increase in incentive to the manufacturers to solve the problems inherent in their manufacture.

The first and most serious problem involved the production of a non-corrosive shell of uniform physical characteristics at a reasonable cost. The development of centrifugal castings solved this problem and marked the starting point of active suction roll application.

The first suction rolls were carried on large ring bearings, the sleeves of which were shrunk on the shell and were driven indirectly thru a ring gear also mounted on the shell. This arrangement was cumbersome and space consuming and, in addition, permitted only moderate nip pressures to be applied, thus robbing the suction roll of much of its usefulness. The advent of the direct driven roll permitting the use of high capacity bearings with consequent high nip loads marks the second forward step in the development of the modern roll.

At about the same time the present spiral drilling pattern was developing to overcome scoring of the interior of the shell and to form a pattern whereby the proportion of hole area and land at the nip line is nearly constant.

This was followed by the application of the rubber cover to the shell to avoid shadow marking and to soften the action of the hard bronze shell on the felt with a consequent increase in felt life, the latter being by far the most important factor today.

These comprise the major factors in suction roll development but they have been accompanied by many mechanical refinements, such as the substitution of spring supported adjustable deckles and sealing strips of the bakelite resins for laminated rubber, the development of the cantilever couch made possible by the direct drive to bring us to the modern roll as we know it.

The suction couch roll, first application of the suction roll, is today almost universally used on all except certain specialty machines. The shells for these rolls are drilled and the holes at the outer surface are countersunk to increase the drainage area. This is common practice on all rolls when no pressing is done. The advent of speeds of 1000 FPM and more has been met by an increase in box width and vacuum pump capacity in order to improve the effectiveness of the roll. More recently the dual box couch has been introduced. This provides a wide low vacuum box followed by a usually narrower high vacuum box, thus achieving maximum water removal with minimum vacuum pump capacity and less drastic action on the sheet.

A further recent development is the primary suction couch installed at the start of the wire incline to the main couch. Because of the limited wrap obtainable, the box is necessarily narrow and the vacuum may be high without danger of wire seizure, power requirement decreased and wire life increased.

Both of these rolls are driven and both cantilevered to facilitate wire changing.

The advantages of suction rolls in their various forms are, of course, a dryer sheet permitting higher speeds and safer pressing.

The suction drum roll was an early suction roll application which still has its place on certain cylinder machines. The modern roll has a very wide box and countersunk holes. It has been modified by the application of a top roll forming the suction drum press.

The suction extractor roll closely parallels the function of the suction drum roll or drum press. The suction extractor is a countersunk hole suction roll having a wire face stretched tightly around the shells and a top roll mounted to give a pressing action. It differs from the drum roll or drum press in that, while the latter must apply its vacuum to the sheet thru a felt, the suction extractor applies its vacuum directly to the sheet itself. Used in conjunction with the plain extractor it has given excellent results.

The advantages of the suction drum roll or press and the suction extractor roll are a dryer sheet, partial elimination of plain primary resses, bulkier sheet, reduction of top felt picking, elimination of crushing and blowing, increased felt life and increased production.

The suction press roll has developed thru the years until today it is almost essential on every machine. In its present rubber covered state it contributes materially to safe and speedy operation of the machine and is suitable for operation at any speeds now in use or in project and is capable when so specified of nip pressures of 300 to 400 pounds per inch. The advantages gained by use of the suction press are a dryer sheet, elimination of wet streaks, increased production, increased felt life, longer intervals between wash-ups and heavier pressing without sheet damage.

While the suction press roll will aid materially in preventing the felt from filling up, auxiliary equipment for cleaning felts has long been found necessary. The suction felt cleaning roll serves this purpose. This is a small diameter light roll with countersunk drilling and is widely used on both cylinder and fourdrinier machines. It operates on the face of the felt. On cylinder machine wet felts it follows directly the showers and whippers and may be followed by a pair of wringer rolls. On press felts it should in most instances be preceded by showers and followed by a pair of wringer rolls to produce maximum results.

It gives longer felt life by eliminating the drag present with suction flat boxes, thus reducing power requirements and felt wear, reduces frequency of wash-ups by conditioning the felt, and keeps the felt surface alive by fluffing up the nap.

A variation is used on some high speed machines consisting essentially of a light suction press applied to the felt only. This is comprised of a small suction roll on the face of the felt with a top roll mounted to press the felt as it passes.

The suction cylinder couch roll was developed to replace the conventional rubber covered couch roll over the cylinder mold. It is at present a wire faced suction roll with a comparatively wide box which eliminates the pond usually present at the nip of the plain couch, assists in couching the sheet from the mold and delivers a much dryer sheet than the plain couch. The development of this roll for all types of applications is not yet complete, but its usefulness has been amply demonstrated and experiments now under way should enable us to complete its development shortly. When installed, it must be accompanied by a suitable cylinder mold drive.

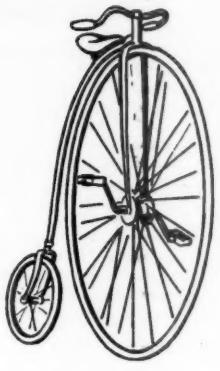
The use of the rubber covered suction roll as a pressure roll against a Yankee dryer has been made with distinct advantages. While it is unlikely that it will remove much water, it has eliminated wet streaks and further, it eliminates blowing at this point by removing air.

A. O. Smith Digester Installed at St. Helens

In November a five-ton A. O. Smith Corp. tumbling type digester for kraft pulp cooking was installed at St. Helens Pulp & Paper Co., St. Helens, Ore. This is a stainless steel lined unit, the first of four such replacements in the current program, and the lining is spot-welded by A. O. Smith process.

A fresh-water well 300 ft. deep also went into production. Max Oberdorfer, president and general manager, says this clean water, pumped from the well by a large capacity Deming pump, is now used on the paper machine.

Another recent installation was a Potdevin bag machine.



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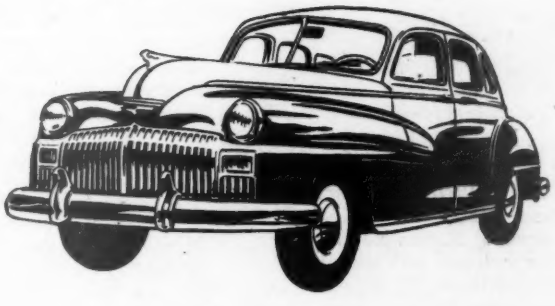

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KALAMAZOO MEETING

The Annual Papermakers Get-Together, where the superintendents and TAPPI associations of Michigan join together for their big winter meeting, will be held this year on Thursday, January 15, in Kalamazoo.

It will be a dinner meeting as usual, beginning at 6:30 p.m., in the Park-American hotel. That hostelry, the well known monthly meeting spot for the Michigan division of the Superintendents' Association, is now under new management.

Top executives and managers of Michigan mills and some national officers of TAPPI and the Superintendents' Association are expected to attend.

Mayor Dan T. Quirk of Ypsilanti, Mich., who is also the vice president of The Peninsula Paper Co., in that city, will be the toastmaster. The principal speaker will be Dr. LeMoyne Snyder, medico-legal director of the Michigan State Police, who is a distinguished criminologist and author.

William Astle, beater room superintendent, Michigan Paper Co. of Plainwell, Mich., is chairman of the superintendents' group in Michigan, and Loen Mimms of Kalamazoo Paper Co., Kalamazoo, is chairman of the TAPPI section. Plans for the meeting were outlined by Olin W. Callighan, secretary-treasurer of superintendents and representative for Edgar Bros. Co.

In February the two groups resume their separate ways, with TAPPI holding its monthly dinner meeting on the first Thursdays in the Columbia Hotel in Kalamazoo, beginning Feb. 5, and the superintendents on third Thursdays in the Park-American, beginning Feb. 19.

Personals

MIDDLE WEST

CHARLES SEABORNE, vice president and general superintendent of Thilmany Pulp and Paper Co., Kaukauna, Wis., has had a lot of experience with weddings in recent months — his son, his daughter, his sister and a nephew all have been married in the space of just a few months.

IRVING GROSBIER, former purchasing agent at Flambeau Paper Co., Park Falls, Wis., for many years, has moved to Rhinelander where he operates a Sinclair gas station and is glad to see any old friends drop by.

THE SIEBERS FAMILY at Thilmany Pulp & Paper Co. goes on and on. A young member, Lloyd Siebers, has joined up as a helper in the tin shop.

JOE KERRY, construction superintendent at Thilmany Pulp & Paper Co., died on Nov. 5 at the age of 63. He started at Thilmany at the age of 13, worked a number of years at Kimberly-Clark, Niagara, Wis., and returned to Thilmany in 1911.

MACE HARRIS, manager of pulp manufacturing at The Northwest Paper Co., Cloquet, Minn., was the newcomer in the list of officers now serving the very active Northwestern Division of the Superintendents Association. Mr. Harris is serving this year as secretary-treasurer and will, presumably, work up the ladder to ultimate chairmanship. Ahead of him are Sigge Ekman, Rhinelander Paper Co. sulfite superintendent, who is now chairman; Frank Kreiling, one of the superintendents at Thilmay, who is first vice chairman, and Lawrence Sabatke, general superintendent at Marathon's Rothschild mill, who is second vice chairman.

WILLIAM ASTLE, beater room superintendent at Michigan Paper Co. of Plainwell, headed for Northern Michigan for the hunting season very soon after his late November meeting as chairman of the Michigan Superintendents.

DONALD H. FARISH, who formerly handled sales of waxed papers from the Stevens Point mill of Consolidated Water Power & Paper Co., is now handling plastics division sales. He has moved from the Chicago (Field Bldg.) offices to Wisconsin Rapids, where the Consoweld line of plastic products are made.

FRANK KREILING, superintendent at Thilmany Pulp & Paper Co., has added a new note to the 1947 stories of vacations when he admits he set a record of "no fish caught," when he took his family to Sister Bay, Wis.

FRED C. HEINRITZ, president of Appleton Coated Paper Co., recently welcomed six new members to the company's Quarter Century Club, which was formed a year ago. He also announced a new hospital and surgical insurance for employes' dependents. Charles Boyd, founder of the company also addressed the new 25-year men — Richard Mahony, Max Eggert, Emil Kahler, Eva Mielke, Vilas Dorschner and Geo. Regenfuss.

WAYNE CROTTY is the purchasing agent at Time, Inc.'s coating mill in Kalamazoo, Mich. He was formerly purchasing agent at the Bryant mill, a few blocks away, and he has been succeeded there by Jack Hartung.

CARL H. KING has been named supervisor of employe training for the Minnesota and Ontario Paper Co., according to G. N. Williams, director of industrial relations. Mr. King will develop training programs at the company's mills in International Falls, Minn., Fort Frances and Kenora, Ont., in cooperation with supervisors of the mills. Mr. King had been Illinois director of vocational training and supervisor of industrial training for Douglas Aircraft Corp.

JOHN STARIN, who graduated last June from the University of Virginia, is now a chemical engineer at the Hercules Powder Co., Papermakers Chemicals plant in Parchment, Michigan.

PULP & PAPER happened to be there, too when PAUL SMITH (left), Superintendent Emeritus of Blandin Paper Co. and first Secretary of the Superintendents Association, recently called on his son, LESTER J. "LEFTY" SMITH (on right) General Supt., St. Regis Paper Co., Kalamazoo, Mich. This picture was taken in front of Bryant Division, one of the three divisions of operations at Kalamazoo. The older Mr. Smith, who is 84, has had 50 years of papermaking at Cloquet, Minn.; at Wisconsin Dells, Eau Clair, Brokaw, Combined Locks and Blandin mills. He revealed he once signed up to play ball for the Detroit Tigers. His sons are well known athletes, including Red Smith, coach of Chicago Football Bears.

DAUGHTER OF E. A. OBERWEISER, president of Fox River Paper Corp., Appleton, Wis., is Mrs Donald Gilpatric and she had a harrowing experience in the forest fires which swept over Bar Harbor colony in Maine. Mrs Gilpatric, whose daughter is in school in Augusta, was alone at their home on Mount Desert Island but she escaped.

JOHN WALLEY, construction foreman of Nekoosa-Edwards Paper Co., and formerly of Manistique, Mich., has retired after 30 years with the Port Edwards, Wis., company. A daughter, Gertrude Ray, lives in Olympia, Wash., where he plans a visit.

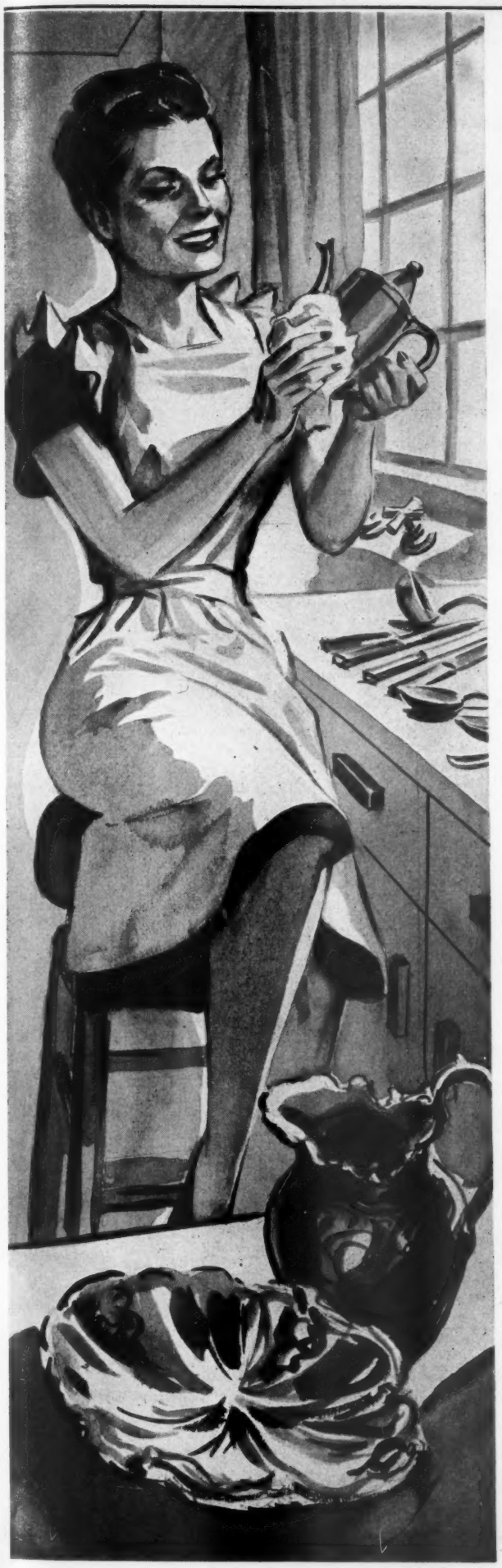
FRANKLIN T. H. KU, 48, former manager of a Chinese interurban railway, is one of a number of Chinese sent to the U. S. to learn papermaking and he is spending three months at Thilmany Pulp & Paper Co. One or two new kraft mills in China are being projected by the government.

FORREST KIMMELL, who taught malaria control and sanitation in the army as a medical corps sergeant and whose 17 years with Sutherland Paper Co. include sales-service, order department work, etc., has been named safety director of that company's big mills in Kalamazoo.

HAROLD BOESCHENSTEIN, president of Owens-Corning Fibre Glass Co., Toledo, O., and director of the pulp and paper division of the War Production Board in the U. S. during the war, toured Powell River Co. logging operations on Queen Charlotte Islands and northern British Columbia with Powell River's Vice President Ben Cancell, who was also an industry executive during the war in Washington, D. C.

TOM TAYLOR, retired former operations executive of Consolidated Water Power & Paper Co., is moving to California to live.

PAPER · · · America's 6th Industry



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PACIFIC COAST SUPTS.

SUPERVISORS' DUTIES—IMPROVING PULPS

HERE ARE 1947-48 OFFICERS of Pacific Coast Division—one of the largest divisions—of Superintendents' Association (left to right): GERALD F. ALCORN, Sulfate Supt., Weyerhaeuser Tbr. Co., Longview, Wash., who consented to serve as Chairman another year; JESSE LEWIS, Supt., Coos Bay Pulp Corp., Anacortes, Wash., elected to Finance Committee (with N. M. Brisbois, Vice-Pres. of Fibreboard); FRED ARMBRUSTER, Dow Chemical Co., reelected Sec'y-Treas.; H. RADFORD RUSSELL, Asst. Supt., Everett Pulp & Paper Co., who advanced to First Vice Chairman, and L. D. McGLOTHLIN, Sulfate Supt., Crown Zellerbach Corp., Camas, Wash., elected to Second Vice-Chairman. He was not present. C. T. Mulledy, of Rayonier Inc., was in line to become Chairman but sent in his resignation because he was unable to attend.

A fall convention marking the 14th anniversary of the Pacific Coast Division of the Superintendents Association was held in Seattle Dec. 5-6 and will be remembered longest perhaps for two outstanding events.

One was a straight-from-the-shoulder talk by Resident Manager Frank Drumb of the Crown Zellerbach mill in Camas, Wash., on what any superintendent or department supervisor should be doing in his day-by-day work. Mr. Drumb got down to facts and cases and presented an 18-point program for supervisors which is reproduced in this article.

The other highlight of the convention was an address by George A. Richter, director of cellulose research and development for the Eastman Kodak Co., Rochester, N. Y., graphically presenting the results of a quarter of a century of work on his part in production of raw stock for refined cellulose. He gave his audience a stimulating glimpse into the future new possibilities for pulp manufacturing.

Registered for the convention were 193 men and 111 women—a total of 304, not counting a number of additional banquet guests. This is an all-time record for the Coast group.

For a future issue of **PULP & PAPER**, early in 1948, Mr. Richter has consented to prepare an article and charts which will give the readers of this magazine important data on pulp cooks which he has gathered during a notable research career as Brown Company's technical director, as a representative of the U. S. government visiting German mills in Europe, as a faculty member at Massachusetts Institute of Technology and more recently at Eastman Kodak, an important user of high quality pulps for rayon, plastics and photographic film. The article will give our readers a "finger-tip" resume of what conditions of cooking benefit or harm the bleachability of pulps.

The national president of the superintendents, Raymond F. Bennett, general superintendent at Ecusta Paper Corp., Pisgah Forest, N. C., crossed the continent to lend his high office to the Seattle meeting.

Pictures of officers of the Coast Superintendents for the coming years and the session moderators and panel members, are published on this page. H. Radford Russell of Everett Pulp & Paper Co., was general convention chairman, and Charles Ackley of the Port Angeles mill of Crown Zellerbach Corp., the fifth national vice president of the association, arranged the technical program. He said the association plans a Pacific Coast convention in 1951-1952 when Mr. Ackley will be national president in the normal course of events. This would be in the 18th or 19th year of the Coast division's history but would be its first national convention in all that time.

Pulping Session

Mr. Richter was introduced at the opening technical session of the Seattle convention by Col. Albert H. Hooker, Jr., sales manager for Hooker Electrochemical Co., Tacoma, Wash., who was associated with him in the chemical warfare service in this country and abroad. Col. Hooker told of Mr. Richter's career and called him the "father" of important chemical warfare applications.

In picturing new possibilities for quality pulp production, Mr. Richter recalled some of the Brown Company history in research, as was reported in an exclusive article published in the February 1947 issue of **PULP & PAPER** (page 22) — how the first alpha pulp from sulfite spruce stock base was made at Brown's Cascade plant in Berlin, N. H., in 1924, and the first substantial quantities of white kraft pulp at La Tuque, Que., in 1928, and the development of West Coast quality sulfite pulps.

Among requirements in these pulps he listed stability and strength for fine papers and for dissolving pulps for rayon and plastics — color, chemical reactivity and elimination of such degradation factors as metallic impurities.

"The markets for these pulps, no doubt, will be extended in the future," he predicted. Quality in alpha pulps, however, has almost hit the ceiling under orthodox methods of production, but a substantial increase in quality can be achieved, he thought, by multiple cooks.

"Multiple cooks will be practiced for economical reasons, too," said Mr. Richter, who spoke without notes on this subject. "They have much to offer in quality and extension of the uses of fibers — in this regard I am thinking of esters, ethers, etc. All of us should give consideration to these new methods of cooking."

To questioners, he explained he was thinking of two successive stages of cook-

PRINCIPAL SPEAKERS at Superintendents Convention in Seattle Dec. 6 (left to right): FRANK DRUMB, Resident Mgr., Crown Zellerbach, Camas, who frankly discussed how supervisors can improve themselves; RAYMOND F. BENNETT, National President of the association and Supt. at Ecusta Paper Corp., Pisgah Forest, N. C., who also offered ideas on the same subject; CHARLES E. ACKLEY, Fourth Vice President and Supt. at Crown Zellerbach, Port Angeles, who discussed plans for a Coast National convention in 1951-52, and GEO. A. RICHTER, Director of Cellulose Research and Development, Eastman Kodak Co., Rochester, N. Y., who is preparing a special article for PULP & PAPER.

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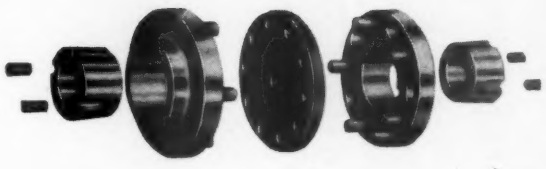

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SUPERINTENDENTS' CONVENTION IN SEATTLE:
Top row (left to right): Pulping panel—Sid Collier, Assistant Supt., Puget Sound Pulp & Tbr. Co.; L. R. Hartman, Master Mechanic, Weyerhaeuser Tbr. Co., Everett (Moderator); George A. Richter, Director of Cellulose Research and Development, Eastman Kodak Co., Rochester, N. Y.; Col. Albert H. Hooker, Jr., Sales Mgr., Hooker Electrochemical Co., Tacoma, who introduced Mr. Richter; John Carlson, Asst. Supt., Soundview Pulp Co.,. and O. K. Chapman, Tech. Director, Weyerhaeuser Tbr. Co., Everett (Jack Savage of Crown Z, Camas, also was on panel but was not present for picture). At right of row—Nelson Hartnagel, Asst. Res. Mgr., Fibreboard Products Inc., Port Angeles, Moderator of Paperboard session. Second row (l. to r.): Papermaking session participants—Vernon L. Tipka, Southern and Western representative of Bird Machine Co.; Merrill E. Norwood, St. Helens Pulp & Paper Co.; Bill Clarke, Longview Fibre Co. (Moderator); Art Newcomb, Crown Z, Camas, and Jesse Harris, Crown Z, West Linn. Mr. Clarke is Asst. Paper Mill Supt. and Messrs. Harris, Newcomb and Merrill and Chas. Ackley (panel member, shown in another picture) are all Paper Mill Supts.

Third row (l. to r.): M. J. Maguire, Res. Mgr., Hercules Powder Co., Portland, Or., and Henry Dauterman, Asst. Paper Mill Supt., Longview Fibre Co., who talked in Paperboard session; Leonard Ziel, Res. Mgr., Crown Z, Port Townsend; John Chandler, who came from Atlanta, Ga., for The Bristol Co., and Malcolm Otis, Res. Mgr., Crown Z, Port Angeles. Last row (l. to r.): J. H. Quigley, Paper Mill Supt., Crown Z, Port Townsend, another Paperboard session speaker; H. A. Des Marias, Pacific Coast Mgr., General Dyestuffs Corp., San Francisco, who led the songs; Ray Smythe, Rice-Barton and Heppenstall Knives representatives, and Z. A. Wise, Vice President, Griffith Rubber Mills, who staged show for Wake-Em-Up Breakfast, and Russell J. LeRoux, Mgr., Everett mill, Weyerhaeuser Tbr. Co.

ing in the same digester without intermediate washing. Perhaps a stainless steel-lined digester in which is carried off both cooks. The first stage, he suggested, might be 15% SO_2 (no base) at 200 lbs. pressure for five hours, with no relief, and using a pressure accumulator. He pictured the second stage as a kraft type alkali liquor after draining the first liquor and not over four hours duration with 100 lbs. pressure. The residual acids in the chips from the first stage would be helpful during the alkaline cook, he said.

Cold alkali treatments are "definitely in the cards," he said, but not in two-stage cooks. He declared the cold alkali "approach" with sulfite raw stock is again becoming important on a cost basis.

One of the most satisfying points of this technical address by Mr. Richter was that through it all he demonstrated that he always kept in mind competitive costs and demand in the pulp market.

The ideal time for investment in unorthodox pulp manufacturing processes to achieve greater quality, he said, would be "when the market is not too good and not too bad." That will be the time, he predicted, when the sulfite industry adopts new methods.

He warned that market pulp manufacturers should not direct their product to one customer or a limited outlet.

"Although the present pulp industry is prosperous, it behooves us all to think of the future and possibilities for extension of pulp uses for conversion purposes," he said. "My company is spending a lot of time and effort in exploring the future and our findings will be made available, and they may save others a year or two of research." He added, however, that he was fully aware that progressive pulp companies likewise were studying the future.

The specter of a future cotton pulp at 5 cents a pound was raised by one questioner, but this obviously didn't disturb Mr. Richter who said the overall cost of his two-stage system in a single digester for pulps to be bleached should be even less than present average costs. "The chemicals should be less; the sulphur should cost less by re-using it and less chlorine would be needed for bleaching," he explained.

In installing any new system, he said, the increment in cost should not be greater than the increment in price in a dull market.

He reported that in Germany and Europe he found much interested in two-stage or multiple-stage cooks, using deciduous woods.

No single wood fiber or cotton, he said, would serve all purposes for Eastman Kodak's requirement of 90,000 tons of pulp a year. To attempt to single out cotton or one type of wood pulp, he said, meant compromise and the quality in each product was compromised.

He commented that kraft base pulps were found unsuitable for acetylation and sulfite wood pulps had varying advantages, depending on wood used. Pacific Northwest woods, for example, he said, had advantage of paper tear strength.

Luncheon Addresses

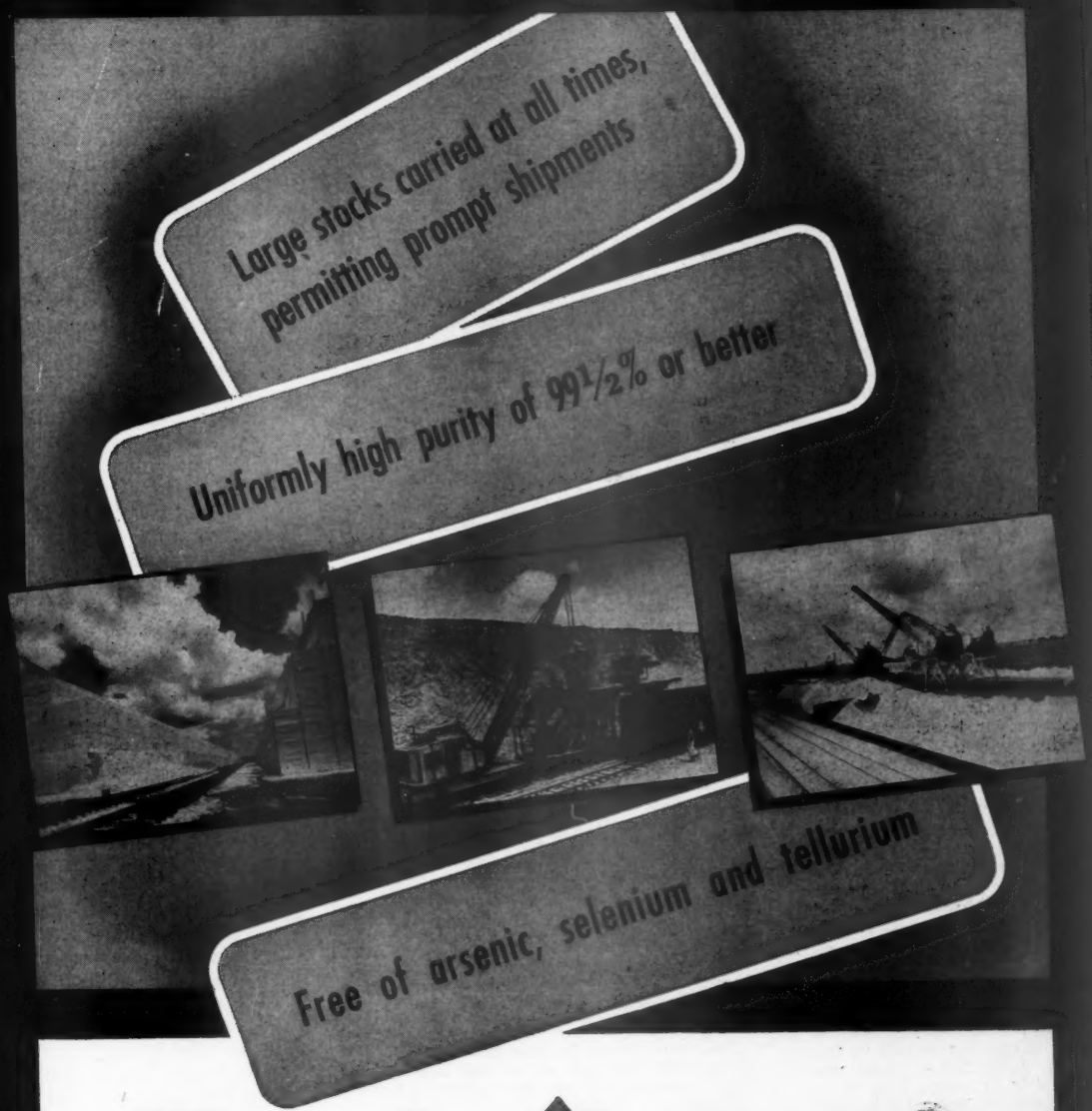
With Chairman Alcorn presiding, a double-barrelled attack on the problems of superintendents and supervisors was staged at the men's luncheon. Mr. Bennett and Mr. Drumb teamed up for the one-two punch, and some of the former's cogent remarks were:

"While we superintendents alone cannot forestall bureaucracy or radicalism, we owe it to our employers, our lesser informed co-workers and to ourselves to do everything possible in that direction. Most assuredly we can keep ourselves abreast of the times by working in our association and keeping it as active and healthy as possible. We should keep the quality of our meetings such that our managements will be anxious for us to take part."

He mentioned Buff Natwick and Gus Ostenson of Crown Zellerbach, Carl Fahlstrom of Longview Fibre and Gerald F. Alcorn of Weyerhaeuser, among western mill executives who had given their time to see that his Pacific Coast tour was interesting and instructive.

Mr. Drumb noted that the U. S. produces half the total manufactured goods of the world and its national income was, a few years ago, as great as the next seven

SULPHUR


Large stocks carried at all times, permitting prompt shipments
Uniformly high purity of 99½% or better
Free of arsenic, selenium and tellurium

TEXAS GULF SULPHUR CO. INC.

75 E. 45th Street New York 17, N.Y.

Mine: Newgulf, Texas

or eight richest countries combined, even back in 1929, before war spread havoc in many of those lands.

"Strangely enough, with all the benefits we enjoy, we find those toredoes of human society, who have infiltrated every strata of our daily life, who, acting on a misconception or actually from orders issued in Moscow, are continually trying to breed dissatisfaction and unrest."

But for "our own best interests" he urged that we not only increase our own productive capacity but "do everything we can to expend the ability of the rest of the world to produce for we are all in one boat together."

He presented some interesting statistics on wages and prices in the pulp and paper industry.

"From the period 1940 to 1947, the average price of pulp and paper products went up about 51% while the general wholesale price index went up 74%. The average hourly wages of the men in our mills (Pacific Coast) went up 85% in that same period. After allowing for the increased cost of living, that hourly wage will still buy 18% more than it would in 1940."

Along with the expansion of industries and growth of unions in recent years, said Mr. Drumb, "there has sprung up a new democracy in management and doubtless everyone has benefited."

Then, frankly addressing himself to supervisors who "are unhappy because they feel their efforts are unnoticed or unappreciated," he launched into a program which he predicted would remedy this situation. It follows:

MR. DRUMB'S 18-POINT PROGRAM FOR SUPERVISORS

"Any supervisor who is reasonably able to do his job (and by this I mean having the fundamental ability and the health) who doesn't get a daily thrill out of his work, had better stop now and take stock of himself. There are many ways to get back into the groove. Start in tomorrow and—

"1. Clean up your department. I do not mean a quick once over, but start out to make it the cleanest place in the plant and keep it that way. I'm not talking to anyone who has no broken pulleys, old belting, gunny sacks and scraps of iron in the corners and under the stairways, but if you do have a few cobwebs hanging from the lighting fixtures, some broken and dirty windows, dryer felt hanging from the equipment and a few strands of wire and rope holding things together, get busy and clean up and paint up. Efficiency has a startling way of being associated with cleanliness.

"2. Analyze your safety records. Spend a few minutes every day discussing safety with several employes. Hold regular departmental safety meetings. Thoroughly investigate every accident and do something to prevent recurrence. Don't learn the hazards of your department through the accidents your men suffer.

"3. Develop your working group into a team. Management is planning and control. Explain why you are doing the work and seek key employes' opinions. They are just like you—they want to be on the ball team, and, just like you, they have some good ideas if given a chance to express them.

"4. Work with your union. Assuming that your mills are all unionized, I would strongly advocate cooperating and working with your shop steward. You will make more production through cooperation than you ever will by trying to undermine the union. The employer who successfully undermines a cooperative union opens the gate to a tough union which he can't undermine.

"5. Devote some time to new employes. Put yourself in their position—explain the job—introduce them to their fellow workmen. Make them feel their job is important. It is!

"6. Encourage suggestions. If your plant has a suggestion system, see that your department is the largest contributor. Be sure your men understand that you want them to make suggestions and congratulate them when they win an award. Follow up when a man's suggestion is not accepted and be sure he understands why.

"7. Study work flow and material handling problems. Too many times the flow criss-crosses and back tracks. Lift trucks and pallet boards save labor and space. Through proper equipment, it is often possible to save annually the cost of this equipment.

"8. Watch your quality. No product is worth turning out unless it is the best you can produce. Remember, your competitor is watching his quality.

"9. Analyze your production. Work on the basis that there isn't a machine in your department that can't turn out from 10% to 100% more production if you will put some constructive thinking into the problem. The investment is often surprisingly small. It is safe to say there is no exception to this statement.

"10. Don't be afraid to praise a man if he does a good job. A friendly personal contact pays surprising dividends. Discipline with discretion.

"11. Put in a merit rating plan. Rate your men once or twice a year on the quality and quantity of their work, their interest and intelligence, their safety and dependability. If a man is slipping, talk it over with him. Don't work yourself into the position of a mill where they discharged a foreman with an important job—after 33 years' service, with the statement, 'He never was any good.' If that was true, the mill was wrong for 33 years.

"12. Stop periodically and analyze your own work. Are you cooperating with your fellow supervisors or having too many arguments? It took me many years to realize that it was I who was having all the fights—the rest of the gang were anxious to cooperate. Is the work laid out for your employes and do they have the necessary materials to work with? Do you listen understandingly to an employe's problems even if it doesn't concern his work?

"13. Conduct yourself in such a way that you represent the real standard of your company. Remember that to many people you are the company.

"14. Stop rumors in your department. If you don't know the facts, go to your boss and get them straight and see that others get them straight.

"15. Promote the feeling of security with your employes who are earning that feeling. Explain company policies and plans with which you are familiar.

"16. Relay the information given to you from the top. See that the men under you are passed on the important issues discussed with you.

"17. Do some good management reading. It may take quite a little reading to get some real practical ideas, but none of the time you devote to good reading is wasted.

"18. Develop the men working under you. Pass on authority whenever you can and encourage employes to use their own heads. You may not know it, but you are probably being judged by your ability to develop others."

Papermakers' Session

With William Clarke, assistant paper mill superintendent, Longview Fibre Co., as moderator, the papermaking session dealt with operation of machine calenders and supercalenders and particularly of machine calender doctors.

Three paper mill superintendents, Art Newcomb of Crown Zellerbach Corp., Camas; Charles Ackley of Crown Z in Port Angeles, and Merrill Norwood of St. Helens Pulp & Paper Co., and Vernon L. Tipka, Southern and Far Western representative for Bird Machine Co., served on a panel.

There was a lively discussion on the use of oscillating doctors but no agreement, as these were favored under some conditions and opposed under others. The question of how to stop the scoring of rolls was debated. Mr. Newcomb pointed out that at his mill oscillating doctors were used on all King rolls and that no scoring occurred, particularly in running oil-treated papers.

It was pointed out that doctor blades themselves do not score the rolls, but rather gum or dirt that sticks to the blades. Austin Nickels, general superintendent at Hawley Pulp & Paper Co., said the problem was that no blade had the same degree of hardness all the way across its edge and he made a point that is generally better known to engineers than superintendents — that is, a softer blade operating against a harder roll material will pick up abrasive dirt which will tend to score the roll more quickly than a harder blade material would do.

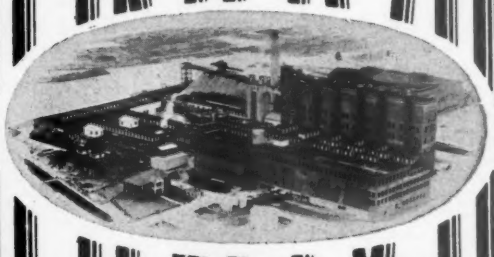
Mr. Tipka stressed the importance of a doctor blade which was flexible in all directions. He said, with backing of some of the superintendents, that steel blades were recommended in place of bronze to eliminate scoring. His company, he said, generally recommended stainless steel and Swedish stainless steel was most desirable if available. He said less pressure may be the answer where there are difficulties. The angle of the doctor blade means more than any other factor in its operation and after being taken off, care should be taken in putting the doctor blade back on again at the same angle. Instead of changing the angle too much, as a result of wear, it is better to replace the blade. A wear of only ¼ of an inch is often too much on some types of doctors.

He made the interesting observation that three mills in the country use a total of 1500 doctor blades, with one mill using over 600.

Mr. Norwood, in discussing operating techniques, said the higher the nip pressure, the lower the pop test on the sheet. Or if the number of nips is increased it will decrease the pop test. Generally, he held that in calender operation it is better to have several nips with lighter pressure than vice versa.

Jesse Harris, paper mill superintendent at Crown Zellerbach Corp., West Linn, Ore., described the operation of the new Appleton Machine Co. supercalenders recently installed there for magazine machine-coated paper for Time, Inc., and Curtis Publishing Co. These are open face

SOUNDVIEW



High Grade

BLEACHED SULPHITE PULP

SOUNDVIEW PULP COMPANY

EVERETT WASHINGTON

calenders hung from arms with a 32-inch bottom roll weighing 20 tons. The 151-inch paper off the new machine at West Linn is trimmed slightly and run through the two calenders at speeds of about 800 to 900 feet. However, when installation of the second rebuilt paper machine at West Linn is completed, he said the two calenders would have to be materially speeded up.

Paperboard Session

The Paperboard session was presided over by A. N. Hartnagel, assistant resident manager, Fibreboard Products Inc., Port Angeles, with three papers devoted to problems confronting the board machine operator, and a fourth paper being a report on gum and wood rosins production.

Milton Maguire, manager of Hercules Powder Co., in Portland, Ore., told the group that the paper industry was the greatest user of rosin. He said commercial rosin was the first shipment of American industrial products to England from her colonies established on the Atlantic seaboard. He divided the rosins into two types, the gum rosin made from live trees and the wood rosin made from reclaimed stumps found in the old Naval Stores Pine region in the Deep South. He said that the rosin industry would have to depend more and more on the live gum rosin, as the stump supply was ever diminishing, the reclaimed stumps being hauled as far as 200 miles to the central distilleries. A third supply which is finding increasing use is now being derived from tall oil as a by-product of the sulfate pulp industry

J. G. Long, technical director, Pacific Paperboard Co., described the use of low volume-high pressure cylinder showers. He stated that needle-type shower heads spaced at 3-inch centers on an oscillating shower and operating at 90 pounds pressure were entirely satisfactory in keeping cylinders clean. By using fresh water, additions of water to the system are advantageously made, with shower cleaning held to a minimum.

In the discussions it was pointed out that with the use of high-pressure water showers on the inside of felts, an open felt condition can be maintained. Another idea which elicited favorable discussion was the suggestion that whippers be placed inside felts to beat out dirt and save nap.

Henry Dauterman, assistant paper mill superintendent, Longview Fibre Co. suggested a close control of the pH of board mill furnish, stating that much trouble can be eliminated by operating near the neutral point.

J. H. Quigley, paper mill superintendent of Crown Zellerbach's kraft mill, Port Townsend, started out by reading a humorous letter which had simplied his subject of "Formation of Kraft Stock on Cylinder Machines" into a 51 word statement.

However, as Mr. Quigley progressed in his talk, it was apparent that the furnish of a cylinder machine was anything but a simple subject. He told the group that his mill found the continuous beating of kraft pulp as the most satisfactory method of handling stock. He felt that the more kraft stock is handled, the better formation is arrived at in the finished sheet. He also urged close control of pH for proper operation.

Two evenings of dancing, a ladies' style show and bowling and golf provided adequate entertainment for the convention. W. M. Clines of General Chemical Div., Allied Chemical & Dye Corp., Seattle; Walt Salmonson, Draper Felt Co.; Douglas C. Morris, Brinkley Co., and Albert S. Quinn, Stebbins Engineering Corp., handled arrangements.

Star performers in the traditional "Wake-'Em-Up Breakfast" program were Z. A. Wise of Griffith Rubber Mills, and Ray Smythe, representative of Rice Barton Corp. and Heppenstall Co. These officers and five other members of the Portland, Ore., chapter of the International Brotherhood of Migratory Peddlers—Ben Natwick of Appleton Wire; Robert Petrie of Black-Clawson; Ernie Kertz of Bolton, John Fulton and Wm. Marshall of Pacific Coast Supply Co.—had fun initiating six charter members of a new Seattle chapter, namely, Ed Barrett of A. O. Smith Corp.; Fred Armbruster of Dow Chemical Co.; Al Quinn of Stebbins Engineering; Walt Salmonson of Draper Felt Co., L. K. Smith and Al Wilson of **PULP & PAPER** magazine.

SCORE CARD ON SUPERINTENDENTS' DIVISION

The 1947 Year Book of the Superintendents Association is out and it is interesting to tally up the score on each division for memberships. Here's our count:

Division—	*MEMBERSHIPS Paid*	*Honorary*	*Chairman and Sec.-Treas. Their Companies*
New York-Canadian	212	6	J. F. Rolland, Rolland Paper Co., St. Jerome, Que. Herman LeBlanc, Rolland Paper Co., Montreal, Que.
Northwestern	176	12	Sigge Ekman, Rhinelander Paper Co., Rhinelander, Wis. L. S. Sabatke, Marathon Corp., Rothschild, Wis.
Miami Valley	145	6	Herbert A. Brawn, American Envelope Co., Miamisburg, O. Andrew H. Frazer, Miamisburg Paper Co., Miamisburg, O.
Penn.-N. Jersey-Del.	142	7	Howard H. Street, Nat. Vulcanized Fibre Co., Yorklyn, Del. Mrs. Alice R. Dow (not a member).
Pacific Coast	117	5	Gerald F. Alcorn, Weyerhaeuser, Tbr. Co., Longview, Wash. Fred J. Armbruster, Dow Chemical Co., Seattle.
Michigan	107	10	William H. Astel, Michigan Paper Co., Plainwell, Mich. Olin W. Callighan ,Edgar Brothers Co., Kalamazoo, Mich.
Connecticut Valley	108	5	Raymond C. Winkler, Chemical Paper Mfg. Co., Holyoke, Mass. Arthur Loomis (not a member).
Southeastern	101	2	Lee M. Bauer, Ecusta Paper Corp., Pisgah Forest, N. C. Sam Hellberg, Camp Mfg. Co., Franklin, Va.
Southern	87	1	Frank Jansen, Hollingsworth & Whitney Co., Mobile. T. C. Johnson, Union Bag & Paper Corp., Savannah.
Northeastern	84	5	George E. Fuller, St. Croix Paper Co., Woodland, Me. Mrs. Marian L. Stewart (not a member).

New Line Photo Papers

Eastman Kodak Co., Rochester, N. Y., has announced a new line of photo papers designed primarily for the reproduction of engineering drawings and business documents. Samples of a new Kodagraph Contact Paper, one of four silver-sensitized papers in the line, were shown this Fall at the National Business Show in New York City. Other new papers: a silver-sensitized sheet which can be handled in normal room light, and two projection papers for use in making enlarged prints from microfilm and other reduced-scale negatives.

GENERAL DYESTUFF CORP., 435 Hudson St., New York 14, N. Y., has released a new circular, entitled "G-485-Nekal A" and available on request, describing this synthetic surface-active wetting, dispersing, stabilizing and emulsifying agent.

Canada Would Like To Sell U. S. More Paper

Because pulp and paper — especially newsprint — are responsible for about 40% of the American dollars brought into Canada, this industry will receive every possible encouragement by the Ottawa government during the coming months, notwithstanding the severe controls over imports and other industrial operations recently applied as a means of straightening out the country's economy.

Canada's problem is a shortage of American dollars. Canada's sales to the U. S. have been running behind her U. S. purchases by about one billion dollars a year.

Some hope has been entertained that U. S. tariffs on fine papers, book papers and paper specialties may be reduced to such an extent that some Canadian imports would be acceptable. Concessions so far granted are not sufficient to offer much prospect of greatly increased business in these lines.

There is not much likelihood at this time of further major expansion of newsprint capacity. Only two companies in Canada are at present installing new newsprint machines.

Swenson Kraft Washers Start Up at Camas

The second operational step in Crown Zellerbach Corp.'s new kraft mill addition at Camas, Wash., was the cutting in of pulp washers on Dec. 1. This is an unusual installation, with knotters in production line ahead of the two Swenson-Nyman brown-stock washers. This portion of the mill expansion program follows starting production of the facial tissue machine previously announced in **PULP & PAPER**.

300% Increase in Wages

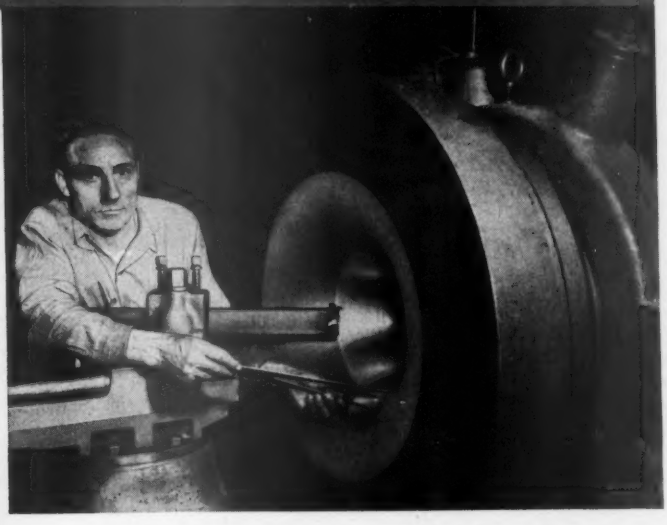
Since 1939, payrolls in the pulp, paper, and allied products industries of the U. S., have increased almost 300%, according to the Department of Commerce. Approximately 400,000 production workers are employed — 135,000 more than in 1939.

VESSEL DIVISION

NEWS

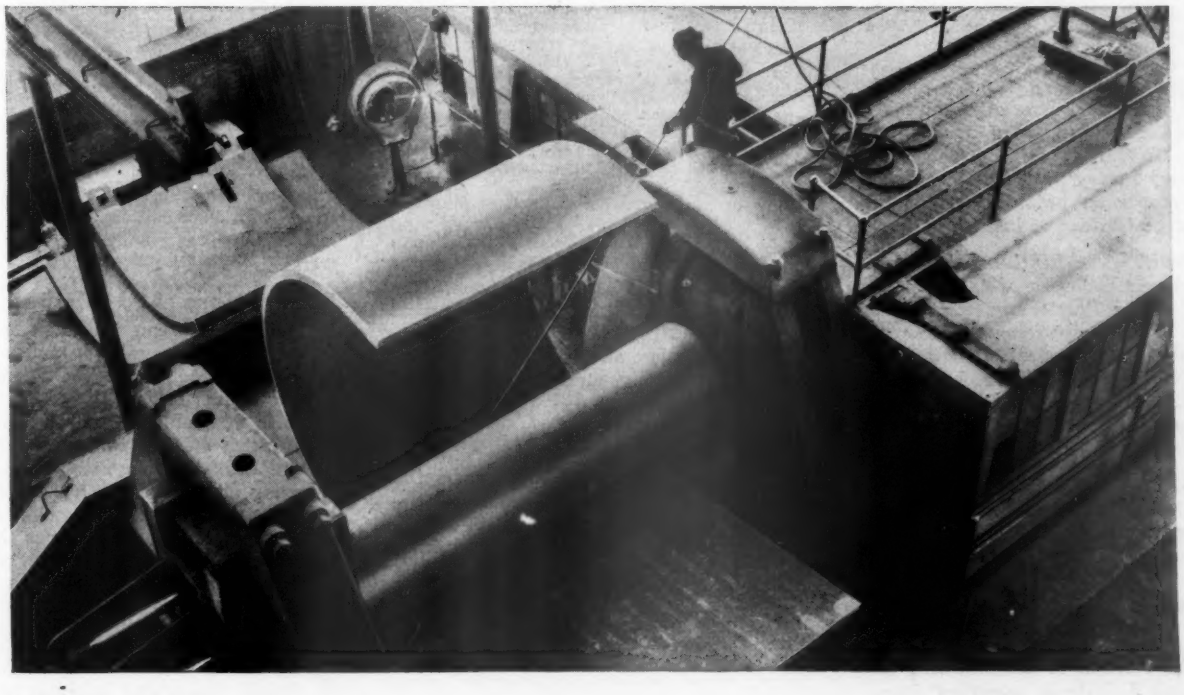
A. O. SMITH Corporation

PACKAGED DELIVERY. The 15-ft. diameter of this SMITHway paper digester made rail shipment impractical. The SMITHway was to pack the vessel in sections, field-assemble it on the site.



TAILOR IN STEEL. Since 1923 Jacob Strand has machined the parts of hundreds of SMITHway Vessels which are now in service all over the world.

HEAVYWEIGHT CHAMPS? Frankly, we don't know. But these particular heavy rolls come in handy when 8,000,000 lb. of pull-down are needed to shape heavy steel plates.



Personals

NORTHEAST

L. CARL STEVENS has been made director of purchases, Scott Paper Co., to act in a staff capacity to all plants of the company in the purchasing of basic items, including pulp, cases, wrappers, fuel, heavy chemicals and other vital supplies.

VICTOR G. SANDHAM has been appointed purchasing agent for the Chester, Pa., plant.

SAMUEL SHANE has joined the public relations staff of the St. Regis Paper Co., New York. He was formerly on the staff of the Wall Street Journal.

E. NOBLES LOWE has been elected secretary of the West Virginia Pulp & Paper Co., 230 Park Ave., New York. He succeeds Charles A. Cass who retired after 38 years in that office. Mr. Lowe became general counsel for the company in 1943, and public relations director in 1944. He holds B.A. and LL.B. degrees from U. of Arkansas.

ROYAL S KELLOGG, secretary of the New Print Bureau, New York, was recently shown an 1884 copy of the London Times by a friend with the E. B. Eddy Co., Hull, Que. They sent it to the Bureau of Standards in Washington to have the unusual short fibers in the paper identified and received a report that it was made from cereal straw, apparently rye straw, chemically treated. Paper in England was formerly made from this raw material.

RAUL DUCCI, in charge of "wood projects" of Corporacion De Fomento de La Produccion (Chile) 37 Wall Street, New York, recently returned from a tour of European countries where he surveyed the wood-using industries and timber problems. He will depart soon for Chile on a forestry survey mission. Corporacion De Fomento is an organization for the promotion of Chilean industry.

DR. ROBERT S. ARIES has been appointed adjunct professor of chemical engineering at the Polytechnic Institute of Brooklyn. Previously research associate of the Polytechnic Institute and director of the Northeastern Wood Utilization Council, Dr. Aries is a consulting chemical engineer. He continues in his post as director of the NEWUC.

FRED SMITH, superintendent, Hollingsworth & Vose Co., East Walpole, Mass., recently completed 50 years with the same company.

Chromium Corp. Elects Officers

Chromium Corporation of America announces the election of the following officers: Frank J. O'Brien, president; Donald H. Bissell, vice president, secretary, and director; George H. Sayers, treasurer, and Charles H. Belvin, assistant secretary.

AT PHILADELPHIA ENGINEER'S Conference (left to right): J. E. Rhoads, P. E. Rhoads & Sons; A. J. Doty, American Boxboard; and I. P. Nicole, American Boxboard.

Photograph taken by PULP & PAPER at recent Engineers' Conference in Philadelphia.

BRADFORD O. PREU, of New York, has been elected vice president in charge of the B-F-D Division, Diamond Match Co. Mr. Preu was vice president and treasurer of the B-FD Company, which he joined in 1927, until its merger with Diamond last spring. Since the formation of the B-F-D Division he has been its manager. The division manufactures paper, pulp, woodenware and safety matches. His home is in Bronxville, N. Y.

LIONEL M. SUTHERLAND, of Sutherland Refiner Corp., 143 E. State, Trenton, N. J., is handling reservations for luncheon on Feb. 25 at the Hotel Roosevelt, New York, of the New York State College of Forestry alumni. It is held during Paper Week.

REP. JACOB K. JAVITS, New York City Republican and for 15 years the attorney for the National Paper Trade Association, was married Nov. 30 to Miss Marion Ann Borris of Detroit.

AUGUST MERZ, venerable dean of Cyanamid employees, completed 50 years of service, on October 12, 1947, with American Cyanamid Co. and its affiliates. Industralist, chemist and public-spirited citizen, Mr. Merz, at 74, is looking forward to continued service with the company in his capacity as research adviser and consultant.

S. D. WARREN CO. recently installed a Jones-Bertrams Patent beater at its Copsecook mill, Gardiner, Maine. The beater is of latest design, with fabricated stainless steel tub, glazed white tile bottom, and stainless steel roll bars and bedplates. Completely automatic control of beating cycles is provided with pneumatic adjustment of roll position.

FOR SECOND TIME in three years the direct mail campaign of Eastern Corp., Bangor, Me., has won the "Best of Industry Award" in the annual Direct Mail Advertising Association Contest. The campaign was built around type sheets designed by such well know typographers as Coggeshall, Goudy, and others, and were printed on Eastern bond papers.

ROBERT GAIR CO., INC., has started operation of a newly built $1,000,000 box plant at Cambridge, Mass.

Advertising Increases; Paper Demand Rises, Too

With vague talk of gathering inventories in some grades it is time to take a look at a group of paper buyers who, it appears, have never really got into full stride since the end of the war. We refer to the graphic arts industry — and it is certainly an industry — the people who produce magazines, books and direct mail.

Not long ago the Association of National Advertisers met in Atlantic City. A poll of these men showed that 47% planned to increase their advertising budgets in 1948, with some of them raising appropriations as much as 50%. About 42% will maintain 1947 budgets, and only 9% were anticipating reductions.

This is reflected in figures of the American Newspaper Publishers Association which states that $350,000,000 was spent on advertising in 1947, which is $80,000,000 more than the previous high of 1946. This is a gain of 30% despite desperate newsprint shortages, and all newspaper publishers say that this year will be restricted only as to the newsprint supply.

Book publishers are worried over rising production costs with consequent narrowed margins, and even worse, a retail price that makes the customer think twice.

The magazines feel optimistic. Life expects to reach its vaunted 5,000,000 circulation by 1950 at the latest. A good source states that Henry Luce is going ahead with his long-delayed new national magazine which will probably treat of world events. Collier's is getting ready a new weekly.

A. W. Kohler, vice president and advertising director of Curtis Publishing Co., told **PULP & PAPER** that he thought it was "safe" to assume that the Ladies Home Journal will "have an increase in both advertising and circulation in 1948," although "conditions surrounding paper supply are anything but certain."

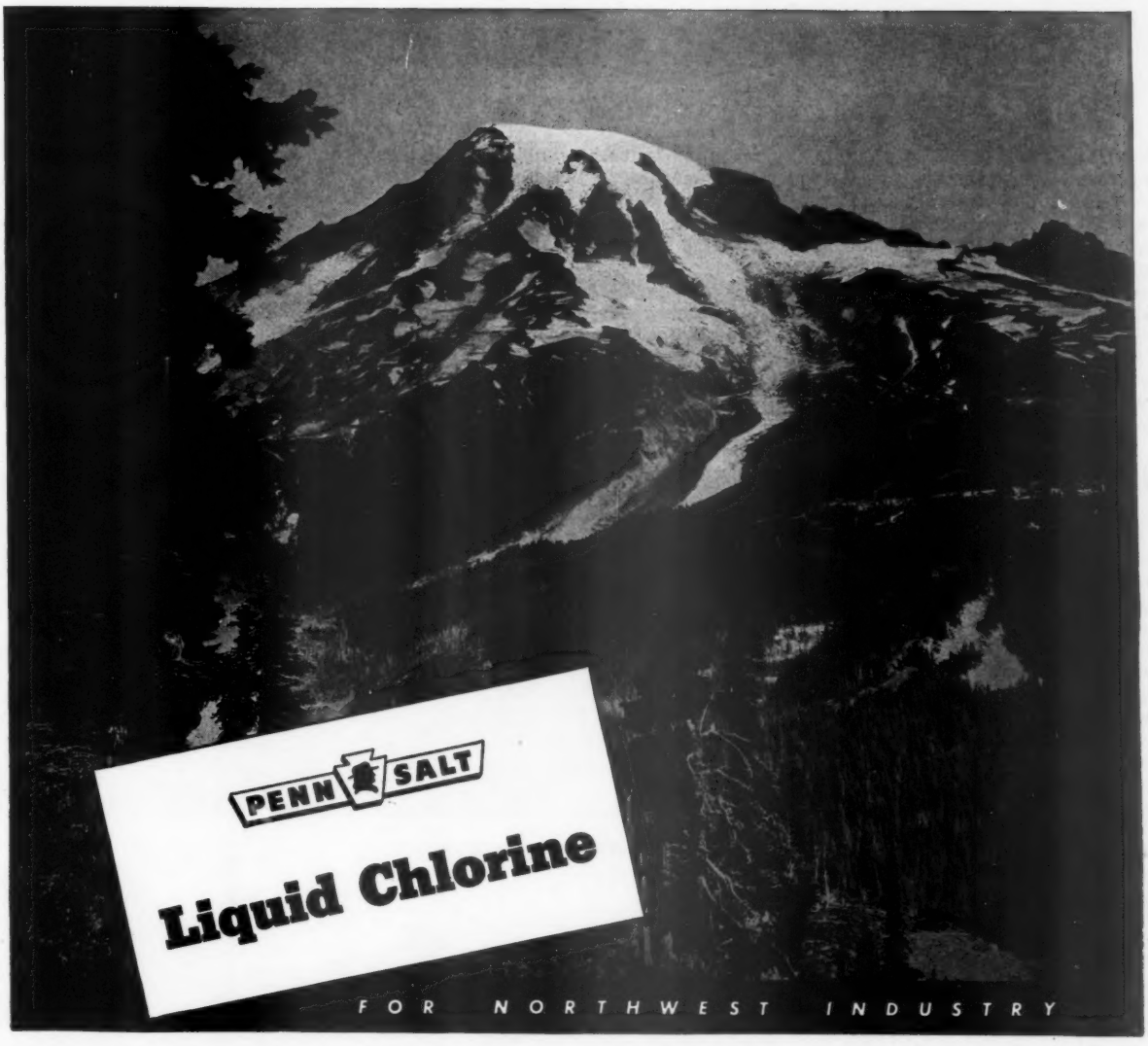
Even Liberty, which New York rumor has been saying is having difficulty finding a forward spot, is optimistic. J. Williams Thomas, advertising director, told **PULP & PAPER**: "We became a monthly with the September, 1947, issue and there was an immediate circulation increase of more than 1,600,000 copies. Only a shortage of paper can hold down the upward trend."

Eastern Corp. Adds Timber

Claude B. Morgan, president of Eastern Corp., which has mills at South Brewer and Lincoln, Me., has signed a contract for cutting rights of pulpwood on 110,000 acres in Maine. This supply, he added, can furnish a large part of the needs of the Lincoln mill for many years. The company also has extensive timber holdings in Nova Scotia.

The company's new power plant at Brewer, Me., is now in full operation, Mr. Morgan announced.

ACQUISITION BY ST. REGIS of Ellsworth Forest Products Corp., of Ellsworth, Maine, increased by 82,000 acres St. Regis' timberland holdings in Maine and brought the company's total in the United States and Canada to more than 1,700,000 acres.



Besides doing duty as a bleach in the pulp and paper industry, liquid chlorine serves Northwest Industry in many ways. It is used in the purification of drinking water . . . helps recovery of metal from ores . . . bleaches textiles and laundry bundles . . . comprises a basic ingredient of DDT and other insecticides . . . aids in sewage disposal.

The first tank car of liquid chlorine ever shipped in North America rolled out of Pennsalt's Wyandotte plant in 1909. Since then, Pennsalt has been a pioneer in chlorine's ever-widening scope of service . . . and has steadfastly maintained rigid standards in the production of liquid chlorine for Northwest Industry.

PENNSYLVANIA SALT
MANUFACTURING CO. OF WASHINGTON
Chemicals
TACOMA, WASHINGTON

Pennsalt products include:
Liquid Chlorine and Caustic Soda
for the Pulp and Paper Industry
Also:
Bleaching Powder • Anhydrous Ammonia • Perchloron* • Sodium Chlorate • Potassium Chlorate • Sodium Arsenite • Sodium Hypochlorite.
*Reg. U. S. Pat. Off.

SORG MODERNIZATION

Final Phase of $1,750,000 Program

Sorg Pulp Co.'s $1,750,000 program of improvement and expansion at Port Mellon, B. C., is now entering its final phases and the whole project, under way since the winter of 1945-46, will probably be completed by June 1948.

Striking changes have been made at Port Mellon, and those re-visiting the old pulp and paper town on Howe Sound for the first time since the new developments were started would hardly know the place.

In the last few months Port Mellon has become a model industrial community, with a plant vastly improved and production stabilized at a figure far in excess of anything previously accomplished. When a **PULP & PAPER** editor visited the mill late in July about 3000 tons of kraft pulp were being turned out monthly, all of it for the parent company in Middletown, O., the Sorg Paper Co.

Quality of product is being constantly improved, and the aim of the mill management, according to Hugh M. Lewis, vice president and general manager, has been to work out a program of maximum utilization extending right back to the forest and continuing through the whole conversion process to the final dispatch of the finished product in bales at the Port Mellon wharf.

When J. A. Aull, Jr., president of Sorg Pulp Co., came out from Middletown recently to inspect the mill he expressed complete satisfaction with the somewhat revolutionary changes that have been effected, when he discussed the Port Mellon program with **PULP & PAPER**.

"I've visited Port Mellon a good many times during the past few years," said Mr. Aull, whose company acquired the mill from the Leadbetter interests back in 1941. "But I've never come away so pleased with results as I have this time. We've really got a pulp mill there now, and it's beginning to roll."

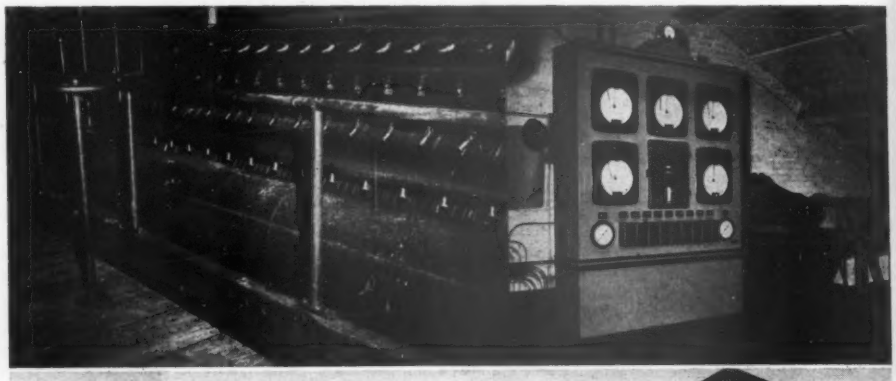
The Sorg Paper Co., of which D. G. Driscoll is president, decided to go ahead with the improvement program at Port Mellon as a post-war measure as a means of providing additional pulp supply insurance in a keenly competitive period. The plan was to build up production from 100 tons of unbleached kraft daily to about 150 tons through construction of a modern chemical recovery building; addition of steam turbo-generator units; installation of an improved pulp washing system; addition of evaporator units. Oil burning equipment has also been installed.

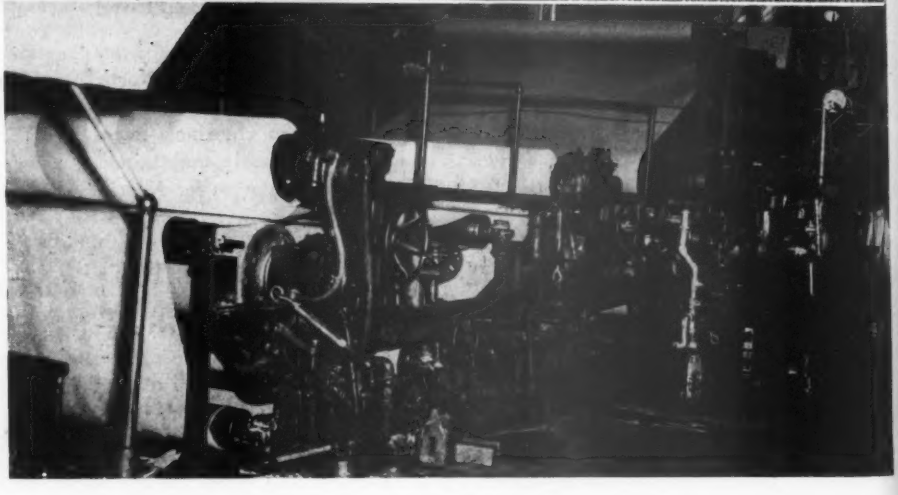
In addition, it was proposed to make several notable improvements in the wood handling setup and in the townsite.

Pulpwood Supply

Pulpwood for the Sorg Pulp Co. comes from a variety of sources, a large quantity of it being supplied by loggers in the adjacent Howe Sound district. The company has also made extensive use of jackpine, which is cut chiefly along the line of the Pacific Great Eastern Railway, whose southern terminus is at Squamish, a few miles to the east of Port Mellon. Far up on the famous Cariboo trail of Canada, a traveling **PULP & PAPER** editor saw piles of this pulpwood along the railroad line.

During the war years some of this pulp was supplied by camps employing Japanese under government supervision in the Cariboo district, but since then the com-





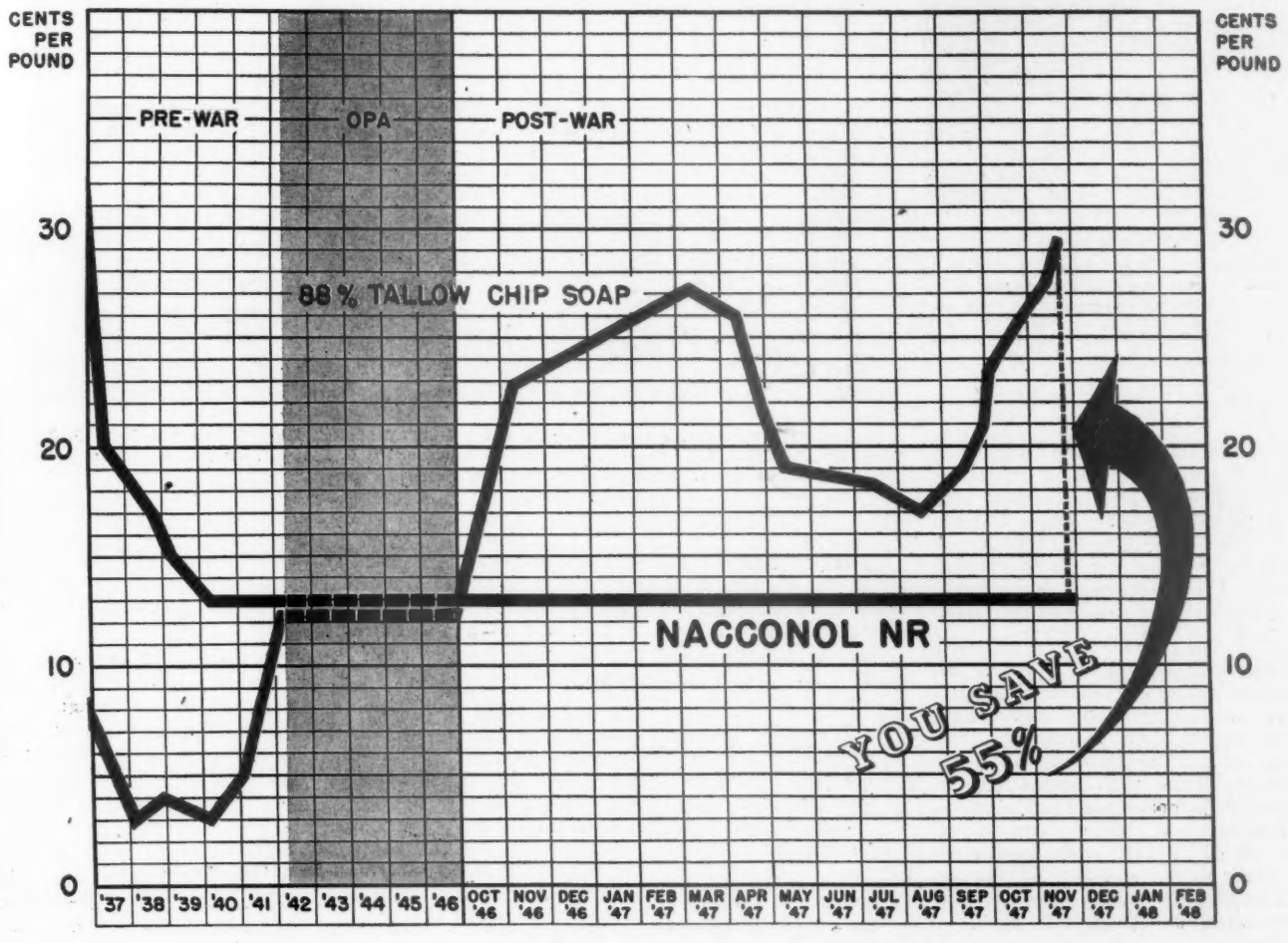
Top Left: The new Swenson-Nyman kraft pulp washer supplied by Swenson Evaporator Co. and described in article. Right Top: Foxboro control board.

Middle View: New recovery unit under construction is shown at right in this picture. Left to right, are the screen room, washing room, digester building, blow tank and new recovery building.

Lower View: Wet end of Black-Clawson pulp machine.

Pictures Speak Louder Than Words

COST COMPARISON - NACCONOL NR vs SOAP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HERE IS THE RIETZ DISINTEGRATOR supplied by Process Machinery Co. of 441 Folsom St., San Francisco, which has many pulp applications and is included among new equipment at Sorg Pulp Co., described in this article. Knots and other rejects are processed in this machine and sent to users of screening for board manufacture.

SORG PULP CO. executives (left to right): JOHN EVANS, Chemical Engineer; HUGH M. LEWIS, Vice Pres. and Gen. Mgr.; MARK WATSON, Master Mechanic, and RALPH BROWNHILL, Asst. Engineer.

SORG PULP CO. executives (left to right): MURRAY "Dusty" RHODES, Pulp Mill Supt.; G. R. MORRISON, Chief Engineer at Vancouver headquarters; G. D'AOUST, Resident Engineer at Port Mellon, and J. CARLSON, Tour Boss.

pany has organized its own pulpwood set-up there. Currently, about 75% hemlock is being used in the pulp process at Port Mellon, the balance being either Douglas fir or jackpine. Owing to the longer cook required for jackpine, the species is usually handled separately in the digester and is then combined with the other stock as required.

The company has found jackpine an exceedingly important source of supply, however, and has probably made more extensive use of it for pulpmaking than any other mill on the Pacific Coast. When other species have been temporarily in short supply, jackpine has been particularly valuable, and there was a three months' period in 1946 when logs were scarce owing to the widespread stoppage of work in logging camps owing to labor disputes when the Sorg mill operated practically 100% on jackpine. It was not possible to maintain production quite as high as under normal conditions, but the schedule was not much affected.

In its future plans Sorg will not neglect the possibilities of jackpine because of the abundance of the species in British Columbia. The jackpine is delivered to the booming grounds in cordwood lengths, and is picked out of the water by crane and bucket, then deposited in a conveyor which hauls it up to the 10'x30' Waterous drum barker.

Other species are delivered as logs to the mill and they are lifted horizontal from the pond by parbuckling cable and then fed to the headsaw. Although the mill is rated at 200,000 feet of lumber daily, it is at present operating exclusively on material for the pulp mill and production runs to about 125,000 feet. A Swedish gang saw is used to cut the wood to the required lengths for the mill, and Sawmill Manager William McGill estimates that this reduces kerf and other loss to such an extent that about 100 feet of wood is saved to every 1000 feet of lumber sawn.

The mill is a heavy user of hog fuel, which comes from Chemainus and other sawmills by barge. Lime is brought in from Blubber Bay, across from Powell River, and salt cake comes from Trona, California.

New Type of Chipper

The new Dunbar chipper is one of the most interesting installations at the Sorg mill. This is a revolutionary self-contained unit, manufactured by Vancouver Iron Works at Vancouver, B. C., according to the original design of James Dunbar, powered with an English Electric 200 h.p. vertical motor with V-belt drive.

The basic and most unusual feature of this chipper is that the actual chipping is done by horizontal disc with a diameter of 60 inches, equipped with four knives. Wood is fed into the chipper by one or both of two spouts at the top of the upright unit, each spout being 10 inches by 10 inches. Capacity is 30 cords per hour.

The advantages of the Dunbar chipper are said to be uniformity of the chips with a minimum of sawdust and almost complete absence of shims and slivers, greater capacity and the fact that screens are unnecessary. No re-chipping is required either, and no specific foundations are required.

The shearing action of the knives is one of the reasons that screening is unnecessary, the fines being unusually light. It is estimated that the chipper required about one-third less power than the more conventional type with vertical disc.

Nyman-Swenson Washer

A conveyor system carries the chips to four rotary 3½-ton digesters, comparatively old units that will soon be replaced by either rotary or stationary units. The stock then moves to a blow tank installed by Dominion Bridge Co. which will accommodate nine digester cooks simultaneously, or about 36 tons. It is then pumped to a modern Nyman Swenson washer, recently installed by Whiting Corp. (Canada) Ltd. Capacity is 175 tons daily.

The washed stock then moves to the dump chest and the liquor goes to liquor storage. Washed stock from the dump chest goes to the knotters, one Sherbrooke unit and a worm knotter. Rejects from the knotters go to a recently installed Rietz Disintegrator, manufactured by Process Machinery Co., San Francisco, and supplied through B. C. Equipment, Ltd., Vancouver. The knots and other rejects are pulped in this disintegrator

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A reproduction of this incident from the fabulous life of Paul Bunyan—the twenty-sixth of a series—will be sent on request. It will contain no advertising.

and the end-product is shipped to users of screenings for the manufacture of heavy board.

Accepted stock, instead of going to the disintegrator, is sent to a battery of five new Trimbey screens, and rejects from these screens go back to the disintegrator for pulverizing, while the accepted stock from the screens goes to the deckers and then to a screen chest, finally being pumped to a Black-Clawson drying machine.

Black liquor, after leaving storage, goes to six Swenson sextuple type evaporators, and from them it goes to recovery units being installed by the Combustion Engineering Co. Green liquor then goes to causticizing tanks and new white liquor is made there from quicklime, then sent to the digesters for cooking the next cycle of stock.

One of the novel projects carried out by Sorg engineers at Port Mellon was in connection with the clearance of debris from the Rainy River, which is the source of the mill's water supply. Especially at flood time, large quantities of wood, brush and other rubbish are carried down the river into the pipeline and thus constituted a potential blockage problem. Engineers worked out plans for a traveling screen which operates something along the lines of a Fourdrinier, the screen itself being 12' x 6', operated on an endless-belt arrangement by a one-horsepower General Electric motor with reduction gear.

The screen is set diagonally in a box 20' x 10' and into this box a pipeline empties the water feed from the river. Actually there are two screens in this box, or tank, one on each side, and they are operated alternately, the flow of water being diverted to one side or the other depending on which screen is to be used. The reason for the two screens is that if one should be blocked it can be temporarily disconnected until cleared.

Top Personnel at Mill

At Port Mellon the staff consists of: Murray "Dusty" Rhodes, pulp mill superintendent, who was formerly with Pacific Mills, Ltd., at Ocean Falls in the kraft mill. William McGill is sawmill superintendent, formerly with Royal City Mills and Dominion Mills on the Fraser River. He first went to Port Mellon when the Nelson Spencer interests were running the sawmill there.

John Evans, formerly with the Brompton Pulp & Paper Co. at East Angus, Que., and more recently at Red Rock, Ont., joined the staff as chemical engineer in July. A couple of years ago he was technical assistant of the Canadian Pulp and Paper Association at Montreal.

Gordon Morrison is chief steam engineer, and Sig Peterson electrical engineer. Mark Watson is master mechanic; J. G. D'Aust, resident engineer; Ralph Brownhill, assistant engineer; Walter Curley, cashier and paymaster.

A. S. James is manager of the hotel and townsite, which is rapidly being rebuilt and modernized with new duplexes and bungalows. Art Graham is in charge of mill stores, and V. C. Stevens manages the general store.

H. J. Burns, treasurer and comptroller; William Brown, log buyer and Fred Davies, purchasing agent, are at the Vancouver head office with Mr. Lewis and his staff.

JOINT LABOR AND MANAGEMENT SAFETY CONFERENCE GROUP (seated at extreme right—right to left): Carl E. Braun, Vice-President of Hawley Pulp & Paper Co., John Sherman, Vice-President of Pulp, Sulphite and Paper Mill Workers; Al E. Brown, International Brotherhood of Paper Makers; Otto R. Hartwig, Crown Zellerbach Corp. Safety Director, Portland, Ore., and S. W. Grimes, Asst Sec'y of Pacific Coast Association of Pulp and Paper Manufacturers.

Safety Conference Draws 50 Participants in Oregon

Fifty delegates from eight mills in Oregon — two Crown Zellerbach mills, the Hawley, Coos Bay, St. Helens, Oregon Pulp & Paper, Fibreboard and Western Converting Co. plants — and from state government and association and union headquarters were participants in the Joint Labor-Management Safety Conference held in Salem, Ore., Dec. 11-12. It generally followed the lines of the California conference, described in our last issue, and the Washington conference in Seattle in January will be the last of this unique series of safety meetings.

Alexander R. Heron, executive vice president of the Pacific Coast Association of Pulp & Paper Manufacturers, said the Pacific Coast mills welcomed this chance to cooperate with the unions in a new field beyond wages and working conditions.

Robert M. Evenden, of the Oregon Industrial Accident Commission, reported that from January through October, 1947, the accident frequency for the paper and allied industries in Oregon was down 28½ from the same period in 1946.

John Sherman, vice president of the AFL Pulp, Sulfite and Paper Mill Workers, pledged support of his organization.

Carl E. Braun, vice president and manager of Hawley Pulp and Paper Co., Oregon City, said: "Good housekeeping is absolutely essential in any plant wherever it is the desire of management to maintain the greatest amount of productivity with safety." On this subject, Al E. Brown, vice president elect of the AFL Paper Makers commented: "A program of plant cleanliness and good housekeeping should be started by management and carried through to a proper conclusion with the cooperation of the employes."

"LOG NOGGIN" is prize-winning name suggested for this non-safety minded character and it paid $100 to W. J. Macht, Pacific Mills electrician. The Canadian industry's Western Branch sponsored the contest. Second and third prizes went to Irene Thorber, Pacific Mills, for suggesting "Dumbo Dan—the Accident Man" and to R. O. Jones, B. C. Pulp & Paper Co. electrician at Woodfibre, B. C., for "Pinhead Pete." The Judges (above—left to right): P. L. Miles, Safety Director, Bloedel, Stewart & Welch, Ltd.; F. F. Foote, Secretary-Treasurer, Westminster Paper Co.; E. W. Campbell, Manager of Personnel Department, Pacific Mills and Chairman; Harry Todd, Powell River Co.; A. S. Jackson, Personnel Manager, Sorg Pulp Co., and L. C. Kelley, General Superintendent, B. C. Pulp & Paper Co.

Timber in Ontario

Abitibi Power & Paper Co., and Great Lakes Lumber Co. have entered into an agreement for sharing the timber on limits in the Nipigon district, north of Lake Superior.

Great Lakes Lumber Co. will cut all the timber in an area of 435 square miles west of Lake Nipigon, keeping sawlogs and turning over pulpwood to Abitibi. On the other side of the lake, Abitibi will retain pulpwood and ship sawlogs to Great Lakes. There is no relationship between Great Lakes Lumber Co. and Great Lakes Paper Co.

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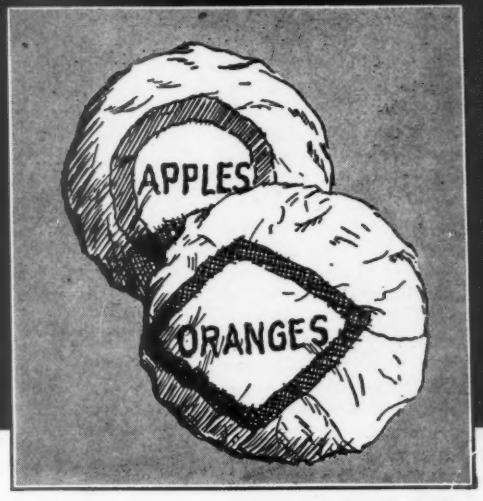

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Farm Forestry Pays

DEMONSTRATION IN GEORGIA

Scattered the length and breadth of Georgia—from Alabama to the sea coast—are 80 model farms, adequately equipped and financed, operated in balanced agriculture in conformance to market and soil conditions. Each of these farms also furnishes a proper example of farm forestry—with accent on woodland management for continual yield.

These 100% examples demonstrate what can be done—and they all are yielding a good living to the farmer for his work plus interest on investment.

The existence of these farms is due entirely to the leadership of Cason J. Callaway, retired cotton mill magnate; one of Georgia's wealthiest citizens, and member of boards of directors of some of the nation's top corporations.

Mr. Callaway believes in Georgia; the ability of its soil to produce. He owns and operates a highly profitable 30,000-acre farm of his own. It was retrieved from eroded, worked out cotton lands.

Having proven to himself that Georgia's soil would respond to proper management, Mr. Callaway called in 700 business men. His plan, as unfolded: Each to put up $1,000 in capital for 100 "Georgia Better Farms, Inc."; each farm to have seven stockholders who were to back their own show with a measure of personal attention.

The plan was based on the assumption that to create profitable employment for a man requires $7,000 in capital.

Financial figures for the first 51 of these farms that operated through 1945 and 1946 revealed the following information:

Average farm size, 144 acres divided as follows: 81 acres of improved land, including 55 acres annual crops; 12 acres in perennial crops; 2 acres in muscadine grapes and orchard; 10 acres in kudsu and sericea lespedeza; 17 acres in woodland and pasture; 40 acres in farm forest (woodland not pastured); 6 acres in miscellaneous other uses, including a pond that also furnishes fish.

These 51 farms each had an average of $6,099.88 invested in land and buildings as of Jan. 1, 1947, consisting of $3,956.28 in land and $2,143.60 in buildings. Original average cost of farms was $23.06 per acre. The owners invested an average of $2,779.78 per farm during the two years.

CASON J. CALLAWAY of Atlanta, Ga., who spearheaded setting up of 80 model farms throughout his state. Accent is woodland management for continual crop yield.

Forty-one farms had an average of $1,892.03 invested in machinery and equipment; the other ten relied on custom hire. Twenty-five farms had a average of $824.58 invested in productive livestock.

Terracing and planting of legumes was effected and an average of 818 pounds of mineral fertilizer per acre was added to the improved land.

Farm forest improvement work has included seedling planting, thinning, sanitary cutting and fencing.

On the basis of the 1947 expectancy, these 51 farms were to earn a return covering all expenses, wages of operators, depreciation, and an average of 7% on capital invested.

The extra dividend is the demonstration of success coming from effective adoption of recommendations of foresters, soil conservationists, county agents.

The figures are for 51 farms. There are now 80 in active operation.

It took a Cason J. Callaway to get this started on a large scale, but once demonstrated, others can do the same.

Active co-ordination of the 100 Better Farms program is being carried on under the auspices of the regents of the university system of Georgia, with P. H. Layfield, as director.

Urgent Action Needed For Forest Service Dead Timber

Thirty-one Lake States mills, eight railroads and the U. S. Forest Service got together in Chicago in late November for discussion of an urgent matter—how to get some 6 billion feet (12 million cords) of insect-killed Engelmann spruce out of Colorado while it is still fit for use in manufacturing.

This is Forest Service-controlled timber which became infected several years ago with 4 billion feet dead by 1946. Visitors in the area say only small ineffective logging operations are removing a small fraction of the wood now and speedy action must be taken to stop spread of the infestation by cutting out the wood.

The American Paper and Pulp Assn. sponsored the Chicago meeting, which dealt with possible utilization of a grand total of 50 billion feet of spruce and lodgepole pine in public lands of Colorado, Wyoming, Montana and Idaho. Much of the pine in Montana also is insect-killed and must be used in a short time or it will be worthless.

It is understood Forest Service action and assistance and perhaps freight rate concessions by the railroads would be required as an emergency measure.

"It was a very significant meeting and everybody came away with something to think about," E. W. Tinker, executive secretary of the APPA told **PULP & PAPER**.

At C-Z Gearhart Meeting

At Crown Zellerbach's Gearhart, Oregon, conference, each mill and each division of the company was required to put on an exhibition to illustrate talks about their processes or products.

Highlight of the meeting was a conducted tour of the Crown Zellerbach timber operations in the Gearhart neighborhood, including the new methods being introduced for salvage logging or re-logging of lands where big logs already taken off, in order clean up much small or broken trees.

What They Saw on Tree Farm

One day of the meeting was devoted to a tour of CZ's Clatsop tree farm, the company's largest sustained yield timber holding. Various types of logging were observed by delegates on the tour conducted by E. P. Stamm, logging man-

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ager, Clarence Richen, chief forester, and Bert Ross, logging superintendent of the Clatsop tree farm.

At the logging sites tractor-arch ground skidding was observed, as were other systems including a 49-foot tower mounted on a tractor for highlead yarding small logs from maximum distance of 600 feet; skyline yarding with a tractor-mounted double drum. This logging is currently carried on in looper-killed timber.

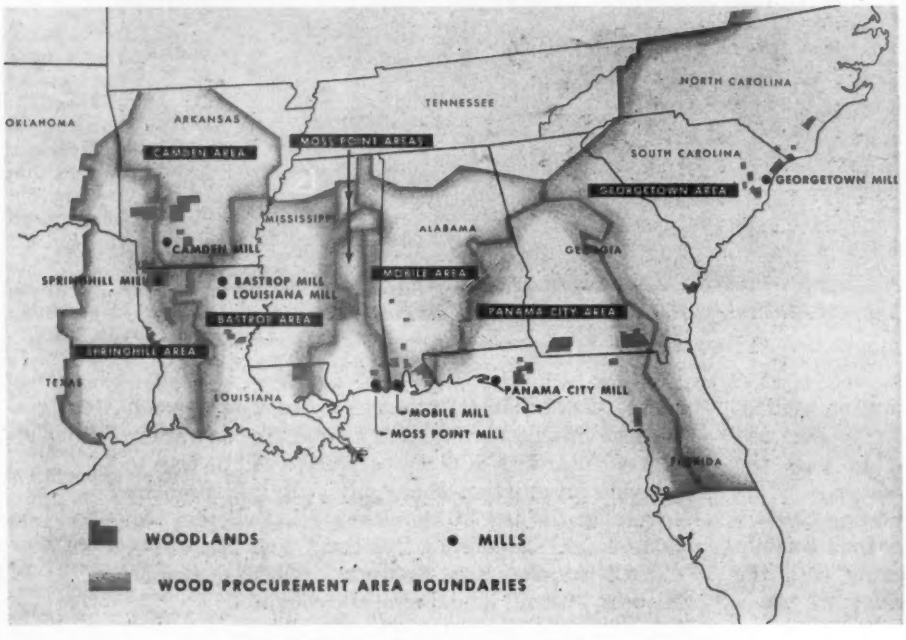
A road construction project making an isolated area of looper-killed timber accessible for immediate utilization was included in the tour. Here the company has a portable rock crusher in operation to provide crushed rock for use both as base and surface construction of the road. Inspection was also made of the company's 12 of private road now under construction on an abandoned 1918 railroad bed, and an underpass at the main county road.

There were timber falling demonstrations with power saws and hand tools, log bucking; the Lewis & Clark log dump near Astoria was visited to indicate to attending personnel how the truckloads of logs are weighed and bundled. Attention was also commanded by the thinning carried on in 60-year hemlock stand in which 20% of the volume is being removed.

Reed-Prentice Doubles Power Chain Saw Output

Increased demand for power chain saws for timber cutting has forced the Reed-Prentice Corp. of Worcester, Mass., to expand their manufacturing program. Installation of additional equipment and enlargement of facilities will permit the manufacture of 2000 units per four week period or double the present output.

Southern Kraft Division Issues "Report to People of South"



THIS INTERESTING MAP shows the areas from which the eight Southern Kraft mill draw their wood supply. In all these areas they are faced with varying degrees of competition for wood by other manufacturers.

An estimated total of 37-million dollars will be spent on woodlands operations in 10 Southern states in 1948 by the Southern Kraft Division of the International Paper Co., providing employment for some 20,000 Southern workers, according to J. H. Friend, vice president of the company and manager of the Southern Kraft Division.

This estimate of 1948 expenditure and employment, made in connection with the release by the company of a special report on its Southern woodlands operations, represents an increase of 8-million dollars since the last full year's operation in 1946, and includes payments to Southern farmers, wood dealers and other timber owners who supply 90% of the company's pulpwood requirements.

The states that will share in this expenditure are North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, East Oklahoma and East Texas. In each of these states Southern Kraft conducts woodlands operations. It also operates in six of these states eight mills located in Georgetown, S. C.; Panama City, Fla.; Mobile, Ala.; Moss Point, Miss.; Bastrop, La. (two mills); Springhill, La., and Camden, Ark.

Mr. Friend's announcement emphasized that the 1948 estimate includes money to be spent only on woodlands operations of the Southern Division. It does not include money to be expended for railroad, freight and barge transportation, and is exclusive of expenditures for the operation of the eight Southern mills and other company activity in the South.

The report is entitled "A Report to the People of the South." Issued in phamphlet form, it emphasizes the importance to the South of treating its vast supply of trees not as a natural resource to be "mined" or consumed, but as a crop to be planted, cultivated and continually renewed.

Pointing out that more than half the total land area of the South is covered with commercial timber, the report states that this constitutes the South's greatest crop, which must be harvested and replanted, protected from fire, insects and disease, and improved from generation to generation.

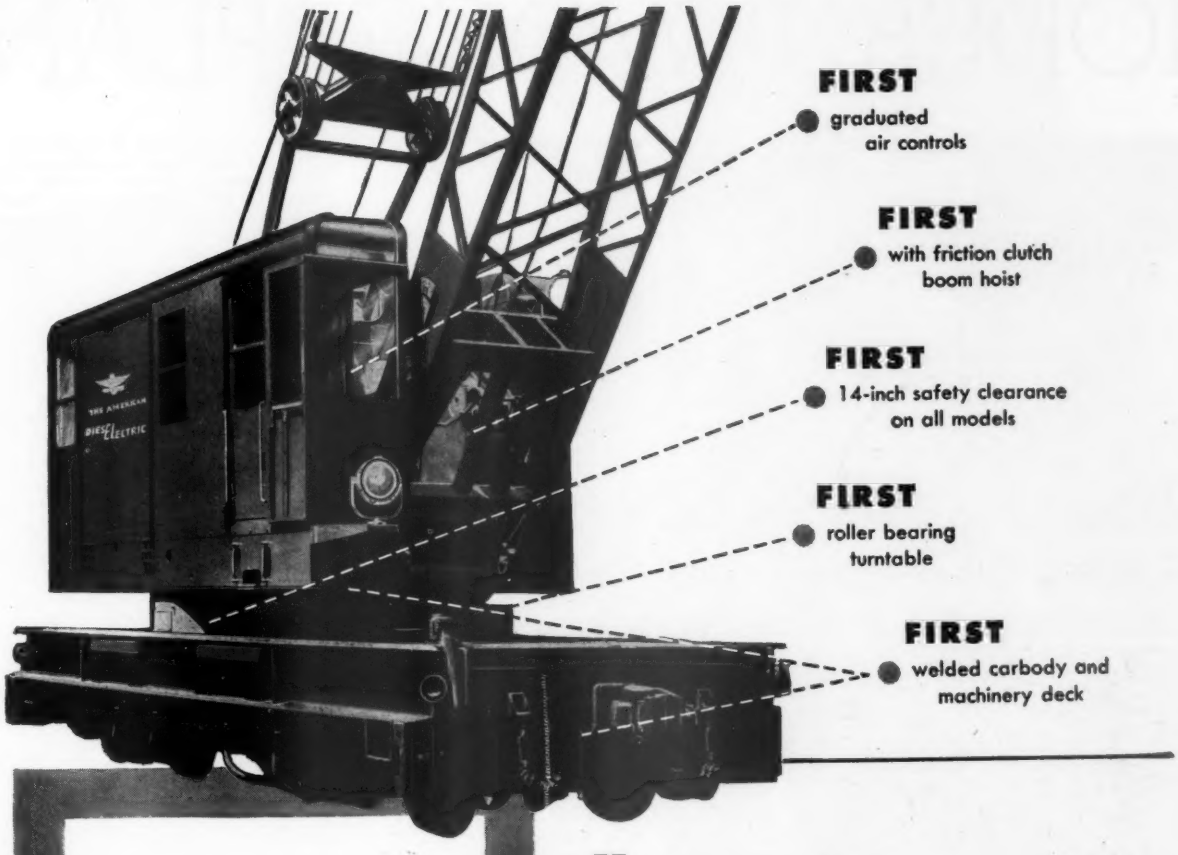
Partial cutting of timber stands is now being done by the paper industry, the report states, for the purpose of maintaining rapid growth, and harvest cutting of mature timber provides for restocking the woodlands. From 1941 to 1945, for example, pulp and paper mills in the South distributed 20-million seedlings for planting on non-company lands, and during the 1945-46 planting season alone, over 10-million seedlings were purchased by the forest industries of the South for planting on their lands and non-company lands.

The report emphasizes that one of the greatest single consumers of the Southern tree crop is fire, which destroys 60 % more trees in the South each year than all the trees cut for pulpwood. Although less than one to three per cent of the trees are destroyed by fire in areas where fire control programs are now in effect, about 60% of the forest lands of the South are still unprotected, and it is in these areas where most of the fires occur.

To combat fire loss, the pulp and paper industry of the South as a whole is currently spending $750,000 a year, according to the report, to protect its lands and to carry on educational work. In addition, the Southern Kraft Division alone spends in the neighborhood of $200,000 annually for educational work on forest management, development of tree cultivation and fire prevention.

In detailing the woodlands operations of Southern Kraft, the report states that in 1946 a total of 2,727,820 cords of Southern pine and hardwood, requiring the transportation facilities of railroads, barges and trucks were delivered to the company's eight Southern mills. This represented 18% of the total pulpwood supply of the country.

The total acreage of Southern woodlands owned or controlled by the company, the report concludes, is only 1.2% of the 167,000,000 acres of privately-owned woodlands in the South and 1% of the total woodlands of the South. During 1946 a total of 167,947 new acres was acquired by the company in the states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North and South Carolina. Total holdings are now 1,950,326 acres, on which there are about 12,000,000 cords of pine pulpwood.



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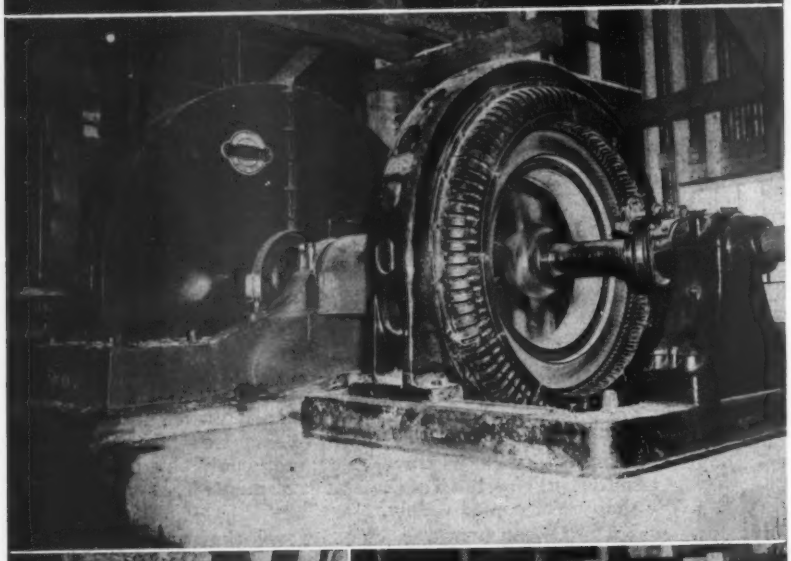
MODERN WOOD PLANT



Pictures taken by PULP & PAPER in new chipping plant and chip storage now in operation at Hawley Pulp & Paper Co., Oregon City, Ore. This is second major step achieved to date in this wood department modernization program. Top view: Log feeding into Sumner chipper built to take logs up to 22" diameter. Jump roll and toothed feed roll (powered by 3 hp. motor driving through Falk Motoreducer, at left of chute) are just below log in this view. The incline at upper right is one of two feeding small wood, from the old wood room, to chipper.

Middle view: Sumner 110" chipper from the power supply end, showing assembly of the six-knife unit and the 450 hp., 300 r.p.m. synchronous motor driving the new chipping unit.

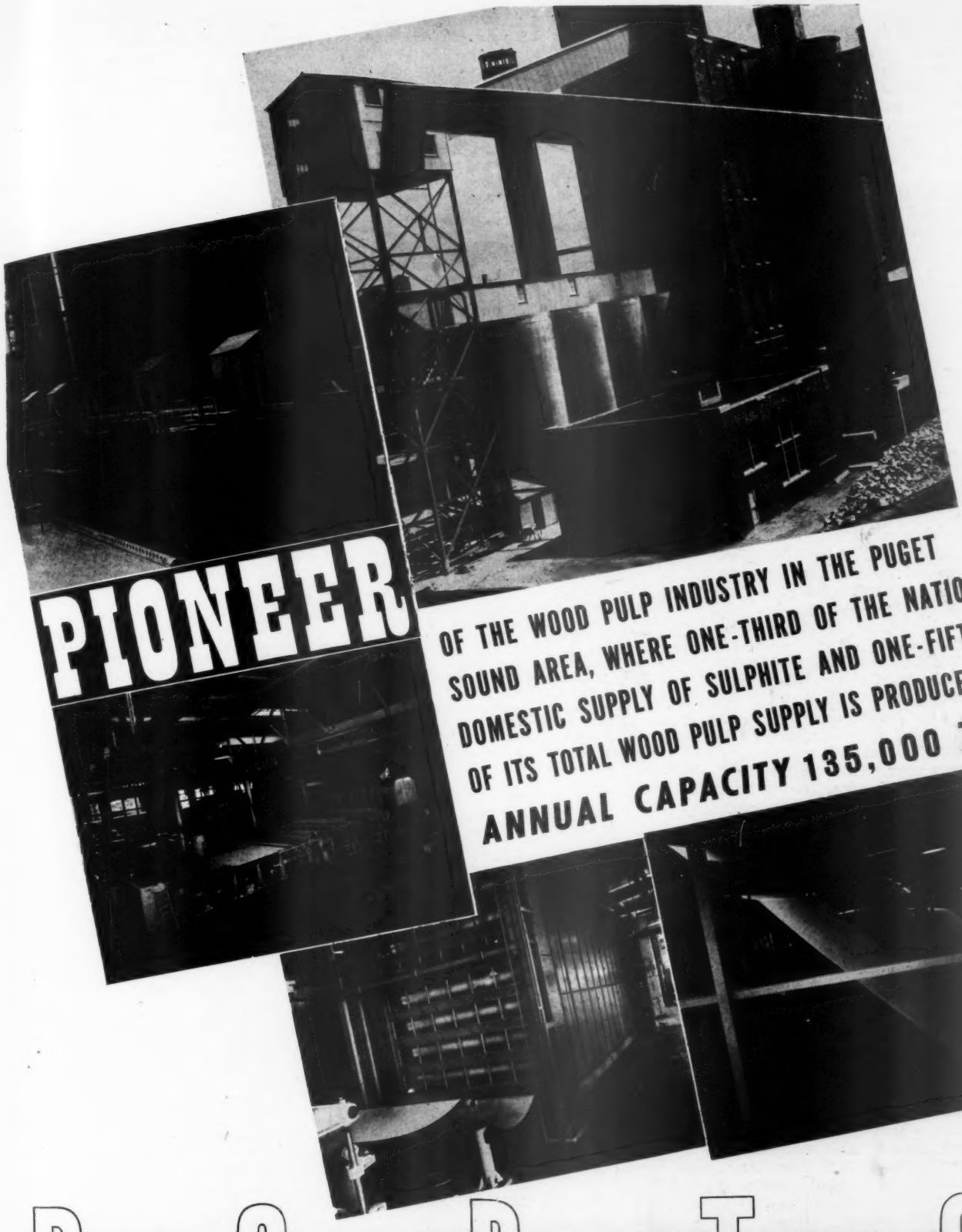
Lower left: ESCO manganese conveyor chain coming up from under the chipper transports chips to 42" rubber belt for delivery to surge bins. These conveyor flights are 30" wide by 7" high, connected by 1¼"x2"x7" long link manganese chain, also supplied by Electric Steel Foundry Co.

Another major step toward a more efficient modern wood department has been attained by Hawley Pulp & Paper Co., Oregon City, Ore. The first phase of the company's current modernization program was installation of a lathe-type hydraulic barker fabricated by Sumner Iron Works. This barker was described and illustrated with pictures in **PULP & PAPER** issue of Sept. 1945. It utilizes approximately 500 galons of water per minute at approximately 1000-pound pressure.

The most recent achievement in this program was the installation of a chipping plant, chip transportation and chip storage silo. Although all of these facilities are completed and operating as component parts of the plant processes, the overall project is not yet finished, as the entire wood conversion department will yet be placed under one roof.

Hydraulically barked logs are segregated just after leaving the barker. Logs 22 inches and smaller in diameter go to the new chipper, while these over 22 inches are returned to the pond and floated to the old wood room where they are split into suitable sizes for groundwood grinders. Logs coming from the barker drop directly into a log conveyor, from which the large logs are removed by a 4-arm steam log kicker, dropping to the pond by gravity. Small logs are used for manufacture of sulfite pulp and the large logs are, in general, for groundwood.

Small logs emerging from the barker remain in the conveyor previously mentioned (known as log conveyor No. 1) and are transported toward the chipper on a three-strand Rex 124 chain at rate of 100 feet per minute. This conveyor is powered by a 20-h.p. electric motor driving through an S-51 10:1 ratio Western Gear Works reduction gear. Log conveyor



PIONEER

OF THE WOOD PULP INDUSTRY IN THE PUGET SOUND AREA, WHERE ONE-THIRD OF THE NATION'S DOMESTIC SUPPLY OF SULPHITE AND ONE-FIFTH OF ITS TOTAL WOOD PULP SUPPLY IS PRODUCED

ANNUAL CAPACITY 135,000 TONS

PUGET SOUND PULP & TIMBER CO.

Bellingham, Washington

No. 1 joins log conveyor No. 2, the latter a single-strand H-110 chain, all Link-Belt Co. product. The second log conveyor, also traveling at 100 feet per minute, is powered with a 10-h.p. 1750-r.p.m. motor through D50 20:1 Western Gear speed reducer. In fact, with one exception all the speed reducers in the new installation are Western-Pacific Gear machines.

Log conveyor No. 2 discharges to feed chute of Sumner 110-inch chipper. This chute is equipped with a jump roll, for tilting long logs down into the chipper, and a toothed feed roll powered by 3-h.p. A-C motor driving through a Falk Motoreducer. Logs pass over these two rolls and drop directly into the chipper.

To one side and slightly above the No. 2 conveyor is another Link-Belt conveyor which also discharges into the chipper feed chute. This unit links Mill H woodroom to the chipping department. When supply of small logs 22 inches and under in diameter, is short and additional wood is needed for sulfite pulping, split wood from the old woodroom is thus transported to the chipping plant, joining the usual flow in this department just ahead of the chipper.

The 110-inch Sumner 6-knife chipper is direct powered by an A.C. 450-h.p. synchronous motor turning 300 r.p.m.

Resultant chips from the chipper are picked up by an Electric Steel Foundry Co. heavy flight chain conveyor running from under the chipper up to a Goodyear Rubber & Asbestos Co. 42" belt upon which the chips drop. The Esco connecting chip conveyor has regular-duty saddle-link cast steel flights, 30" wide by 7" high, connected to long-link 1¼"x2"x7" manganese conveyor chain. After the chips drop from this conveyor to the 42" rubber belt, they are subsequently delivered to each of two steel surge bins, which in turn feed chips to the 6' x 16' low-head flat screens. These screens setting in horizontal position vibrate 990 times per minute. Chip flow into the screens is controlled by rotary-vane feeders. Each of the two screens is powered by a 20-h.p. 1800-r.p.m. motor.

Oversize chips, slivers, and cards are transported from the screens by means of a flight conveyor to a No. 35 Diamond hog operated at 1000 r.p.m. by a 40-h.p. motor. The resultant hogged wood is returned to the chip flow and again passes through the screens. "Dust," or undersize material, drops through 3/16-inch punched round holes of the screen and is picked up in an American Sheet Metal Works blower system. This undersize wood material is exhausted from the blower to join with the hydraulic barker refuse—all of which is utilized as fuel in the steam power plant.

Sized chips, passing through 1¾-inch square openings of the top screens, go directly to another rubber belt, the first of three flights leading to a concrete live-storage silo of 50,000 cubic feet capacity. This 36-inch belt transport is in three zig-zag sections because of limited space for building a single long flight to top of the silo.

The chip-storage silo is constructed of re-inforced concrete with inside diameter of 40 feet and walls 70 feet high. Bottom of the storage space is steel cone with 55-degree sloping sides and 10-foot discharge opening. Concrete work on this unit was by Gilpin Construction Co., and the steel cone built by American Pipe & Construction Co., both of Portland.

Chips are withdrawn from the silo by a horizontal rotating feeder disc 15½ ft. in diameter which is made by Stephens-Adamson Manufacturing Co. of Los Angeles. Discharge from the silo feeder is by a rubber belt 30" wide, delivering chips to digester bins. Enroute from silo to bins, the belt and chips pass over a Merrick Weightometer.

The chains, sprockets, and mechanical conveyor equipment is Chain-Belt Co. Conveyor belts are Goodyear Rubber & Asbestos Company's manufacture.

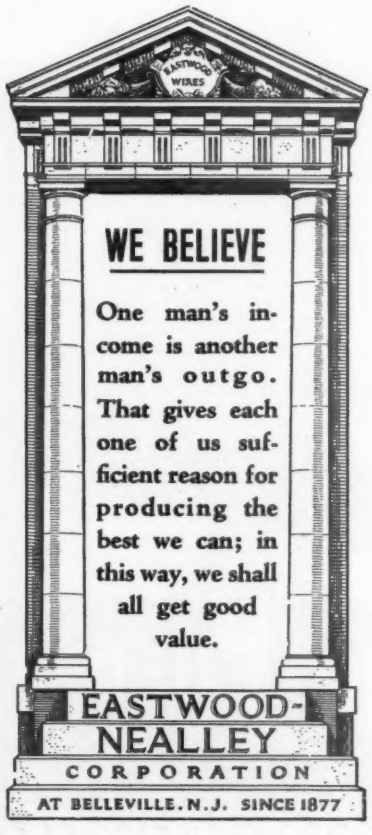
A REVIEW OF DR. MARK'S SEMINARS

In this article we have briefly summarized the three seminar talks which Dr. Herman F. Mark, of Brooklyn Polytechnic Institute made at meetings held several weeks ago in Portland, Ore., and Seattle, sponsored by Pacific Coast TAPPI. Pacific Northwest mills sent delegations of their young technical and research staffs to the seminars.

Recently Dr. Mark spent several months in Europe traveling through England, Sweden, and Germany picking up familiarity with the wartime and post-war developments in the field of cellulose. New fundamental aspects are being worked out. Methods have recently been built up in Sweden in making pulp and treating paper with synthetic resins. He told PULP & PAPER of acid pre-treatment of chips carried on in Germany and Sweden to save cooking time and chemicals, and may also result in better pulp.

First topic of the seminar was the cellulose molecule. Dr. Mark defined the cellulose molecule as a linear chain consisting of Beta-d-glucose units joined to gether by oxygen bridges in 1, 4, glucosidic linkages. The molecule itself may contain anywhere from less than 100 to 10,000 of the glucose units.

He discussed the active chemical groups on the molecule. First, carboxyl or acedic groups: These are not present in the native cellulose unless it has been exposed to oxygen light, but are found to greater or lesser extent in cellulose after commercial processing.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WE BELIEVE
One man's income is another man's outgo. That gives each one of us sufficient reason for producing the best we can; in this way, we shall all get good value.
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The carboxyl groups have an effect of weakening the cellulose chain so that it may be easily be broken at that point, and degradation will take place in alkaline medium.

Cellulose chain may also be broken by action of acids. In general the cleavage appears to be at random, however recent careful work has shown there are a few bonds which are easily broken and, on the other hand, the last few bonds seem very difficult to cleave.

The most important group on cellulose molecules is the hydroxyl group. It is this group which gives cellulose its reactivity in the preparation of derivitives and also binds the long threadlike molecules together into fibers through secondary valences, known as hydrogen bonds.

It was also pointed out that the crystalline structure of cellulose was primarily a lamellar structure, and that the strength was largely exhibited in flat ribbon-like leaves, and that the cohesive forces in the third direction are relatively weak. A parallel relationship was drawn between crystalline cellulose and mica.

The cellulose molecule in solution was his second topic. When cellulose is completely dispersed in solution, Dr. Mark disclosed, all hydrogen bonds among molecules are broken, and in dilute solution the chemistry consists of the relation between the individual molecule and the solvent. Being a high polymer, cellulose has a molecular weight as high as 1½ million. The ordinary methods of molecular weight determination of simple substances fail under these circumstances. Special techniques for direct determination of molecular weight may be grouped under three headings: Those depending on number of molecules or osmotic methods; those depending on light scattering or turbidometric methods; those depending on sedimentation or diffusion in the ultra centifuge. An indirect method which is most commonly used is that of viscosity of cellulose solutions. For definite values, however, the viscosity method must be calibrated in terms of one of the absolute methods.

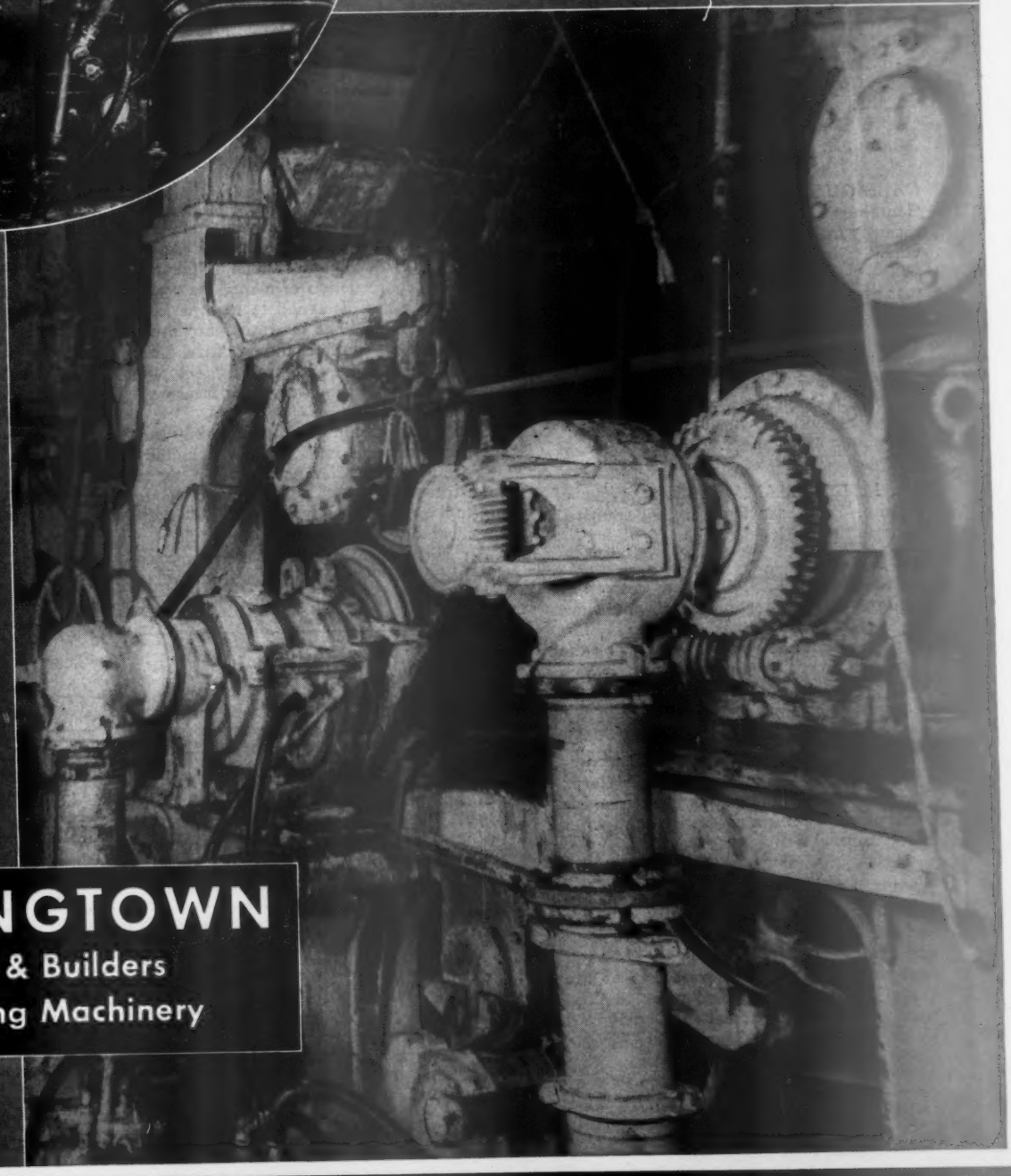
It was emphasized that the molecular weight of cellulose, as determined, is an average value, while the average number of glucose units (D.P., degree of polymerization) may be 3000, individual molecules may contain anywhere from less than 50 units to about 10,000 units. Obviously the properties of the cellulose are widely varient, depending on the number of molecules of each length and the width of the spectrum of these molecules.

Cellulose in solid aggregation was his third subject. Dr. Mark pointed out that while there was no theoretical basis for difference in strength between cellulose and, for example, nylon, the latter on the average has about twice the tenacity. The tenacity is determined by the degree of orientation of the individual molecues in the fiber, but a high degree of orientation also causes stiffness and brittleness in the fiber. In other words, a fiber should contain a proper balance of crystalline, semi-crystalline, and amorphous regions in order to exhibit a desired balance between tenacity, and suppleness. The degree of crystallinity of a fiberous material may be determined in a number of ways, which may be grouped under three classes: X-ray diffraction; density—the crystalline material being more dense; reactivity—the amorphous material exhibiting more reactivity.

The discussion indicated there might be many applications in the paper field similar to those of synthetic fibers.

OLDEST MANUFACTURER OF MODERN SUCTION ROLLS

Photo in circle shows a modern Downingtown Suction Press Roll with suction connection thru a hollow leg at the front end. Picture below shows two pioneering designs of Downingtown Suction Presses which were installed 21 years ago at Scott Paper Co., Chester, Pa. These rolls are running today. Scott Paper Co. ordered their first Downingtown Suction Press in 1925. They now have 11 in operation.... Downingtown Mfg. Co., Downingtown, Pa.



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Most Complete Line of

SUCTION ROLLS

Suction Couch
Suction Press
Suction Felt Cleaning
Suction Extractor
Suction Drum
Suction Cylinder Couch

DOWNINGTOWN

Designers & Builders
Paper Making Machinery

Personals

SOUTH

HAROLD H. YODER, vice president in charge of industrial and public relations for Gulf States Paper Corp., Tuscaloosa, Ala., has been elected president of the Tuscaloosa Kiwanis Club for 1948.

BASIL E. KENNEY, of Port St. Joe, Fla., has been re-elected to a fifth term as president of the Florida Forest and Park Board in a meeting in which it was announced that plans have been perfected to put an additional million acres for forest land under fire control.

JAMES OVERALL, a chemical engineer from South Carolina has joined the mill technical department at Union Bag & Paper Corp., savannah, Ga. He is a gradute of U. of Florida and his hobby is cameras.

JOHN B. CHANDLER, of Atlanta, Ga., pulp and paper mill engineer for The Bristol Co., was accompanied by his wife and his son on a part of his tour of the Pacific Coast from Los Angeles, to Port Alberni, B. C., during the past month.

CARL GUEST, chief chemist of National Container Corp., Jacksonville, Fla., was recently married to Lois Reed of Jacksonville.

WILLIAM WEBSTER, assistant general manager of the National Container Corp. mills, headquarters in Jacksonville, Fla., made a flying visit recently to see his parents in Philadelphia, living in same house in Frankfurt, northeast section, where he was born. Bill's school was University of Pennsylvania.

R. H. LAFTMAN, general manager of National Container Corp. mills, returned from a trip to Sweden Oct. 26.

JAMES E. MIXON, who has served as acting state forester for Louisiana since the resignation of Massey Anderson last May, has been named state forester by the Louisiana Forestry Commission, of which Vertrees Young, Gaylord Container Corp., is a member.

DR. H. Y. CHARBONNIER, mill technical director at Union Bag & Paper Corp., Savannah, Ga., suffered a broken ankle some weeks ago in a softball game with a mill group.

ALBERT ERNEST has joined the Florida Pulp & Paper Co. in an executive capacity and will be in charge of land acquisition and timber production along the Atlantic seaboard. He is former president of the Dixie Wood Company and prior to that, manager of the Woodlands Division of Union Bag & Paper Corp.

NEWPORT INDUSTRIES, INC. held its celebration of completion of construction work on its new $5,000,000 naval stores plant at Oakdale, La., on Oct. 31 and production started in mid-November. Officials include J. H. McCormack, president; E. S. Sission, vice-president in charge of engineering, and J. J. McCabe, treasurer, all of Pensacola, Fla.

ETHYL CORPORATION, Baton Rouge, La., has become the largest producer of salt cake in the South, according to J. H. Schaefer, vice president and general manager. The salt cake is a by-product of the production of ethylene gas. Salt cake is also produced by the Bay Chemical Co. of Weeks Island, La.

Union Bag Plants Set Production Records

New production records have been made in the pulp mill and bag factory of Union Bag & Paper Corp., Savannah, Ga.

The pulp mill produced an average of 1,055 tons per day during October, against a previous average of 996 tons a day.

On Oct. 29 the bag factory made 705 tons of bags, only to break that record the next day by producing 741.8 tons. The previous record in the bag factory was 700 tons, made on Sept. 4, 1946.

New Water Filter Plant For H. & W. Alabama Mill

A $1,000,000 project has been commenced by Hollingsworth & Whitney Co. at its Chicksaw Mills at Mobile, Alabama, involving construction of a modern water treatment plant, designed to treat a total of ten million gallons of water per day; a new pumping station and of three and one-half miles of underground steel pipe line to convey the water to treatment plant and mill.

The water treatment plant, mainly reinforced concrete and steel, will include a flocculator-clarifier structure, a rapid sand filter plant, with filtered water feeding to a clearwell reservoir, and a 3-story chemical building of steel and brick.

An addition to its mill laboratory to provide facilities for carrying on water analyses will be built.

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WE INVITE CORRESPONDENCE WITH EMPLOYERS SEEKING EXECUTIVES AND EXECUTIVES SEEKING NEW POSITIONS.

CHARLES P. RAYMOND SERVICE, INC.
PAPER MILL DEPARTMENT
294 WASHINGTON STREET
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WANTED

A comparatively young engineer with some mechanical or chemical engineering background, preferably in woodpulp manufacturing.

Opportunity open with one of the oldest and most successful manufacturing firms on the Pacific Coast doing a national business. Applicant selected will be given training in company's engineering department preliminary to field engineering and sales. Letters, which will be held in strict confidence, should include statement covering personal history and experience. Reply Box 1, Pulp & Paper, 71 Columbia Street, Seattle 4, Wash.

Notice of Additional Time to Qualify for Bidding and Deferment of Auction for Sale of 1,500,000 cubic feet of National Forest Timber Embracing Portions of Pulptimber Allotments E, F, and G in the vicinity of Ketchikan, Alaska.

Statements from parties wishing to bid will be considered if received by the Chief, Forest Service, on or before March 1, 1948. The Chief, Forest Service will inform each applicant on or before March 29, 1948 as to whether he has qualified as a bidder. Oral auction bids will be received by the Chief, Forest Service, beginning at 2 P.M. April 14, 1948. The terms and conditions of sale are otherwise the same as stated in the published notice which appeared in the October 1947 issue of this publication.

Best Accident Record

During the past three months Longview Fibre Co., Longview, Wash., carried on its usual production with the best accident record it ever had, according to B. K. Wickwire, personnel manager. During the month of November there was but one accident in the organization, with resultant frequency factor of 3. Factors for September and October were 3 to 10 respectively.

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LUBE MEMO
Easy way to end sticky valve trouble
Sticky gum on our valves
Ex. valve on #1 isn't closing -loss of compression and power.
Nelson says compounds in RPM DELO Diesel Engine Lubricating Oil keeps valves free 3 ways:
1. Anti-oxidant stops gum formation
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Nelson brags RPM DELO Oil keeps his valves clean as a whistle.
Mon.-lube change due-get RPM DELO Oil
DIESEL ENGINE
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Personals

CANADA

R. L. SEABORNE, brother of Vice President Charles Seaborne of the Thilmany Pulp and Paper Co., and of Fred Seaborne of Kimberly-Clark's top staff, has been elected a director of Mersey Paper Co. in Canada. The Seabornes started their paper industry careers at Quebec's Laurentide Paper Co.

RALPH KILLAM, son of President Lawrence Killam of the B. C. Pulp & Paper Co. and a company representative, has returned from Japan where he spent six weeks as a member of a Canadian business group.

T. H. ROSBOROUGH, formerly construction superintendent with the Kresge organization in Toronto, has become townsite superintendent at Kapuskasing, Ont., for Kimberly-Clark Corp.

CLARENCE T. CLARKE, mills manager, Restigouche Co., Ltd., Campbellton, N.B., and F. O. White, chief engineer, Fraser Companies, Ltd., Edmundston, N. B., returned from a cross-continent tour.

E. D. HYNDMAN, formerly of St. Lawrence Paper Mills and recently assistant to President E. M. Little of Anglo-Canadian Pulp & Paper Mills, has been appointed resident manager of the Halifax Power & Pulp Co. at Sheet Harbor, Nova Scotia, which produces about 100 tons of groundwood daily.

W. D. HAGENSTEIN joined the staff of Powell River Co.'s forest department Dec. 1, and his duties are concerned primarily with the development and formulation of forestry working plans for the British Columbia corporation. Bill Hagenstein graduated in forestry at the University of Washington and received his M.F. degree at Duke. He was with the Seabees in the South Pacific during the war.

EVAN S. PIRIE, safety engineer of Powell River Co., and Hudson Pirie, also of Powell River Co., held a reunion with other members of the Pirie family in New Westminster, B. C., recently. Dawson Pirie, who went west from Winnipeg for the gathering, was formerly in the finishing room of the Powell River Co.

W. C. HARRISON, formerly logging superintendent for Abitibi at Iroquois Falls, has been made an assistant to A. R. Mobbs, industrial relations manager for Abitibi at Toronto.

IVOR WILLIAMS, newsprint machine tender, received $100 at a recent Pacific Mills dinner in Ocean Falls, B. C., for suggesting the installation of instant-acting foot brakes on certain papermaking machines. Use of these brakes will permit immediate stoppage of the paper rolls if a break or flaw is noticed while the finished paper is being wound at high speeds.

MARGARET ANNE WELCH, 16 year-old daughter of Gordon Welch, of Pacific Mills' engineering department at Ocean Falls, B. C., has been awarded the 1947 Pacific Mills university entrance $250 scholarship by leading all children of Pacific Mills employes in examinations.

McMaster Returns to Coast

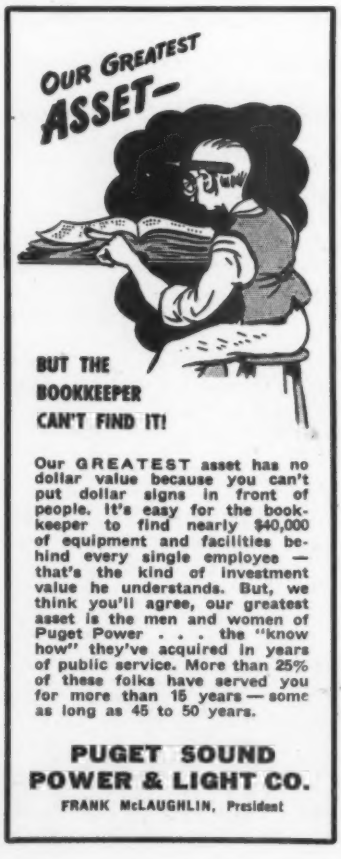
A. E. McMaster, for many years an active figure in Canada's pulp and paper industry, will return to the Pacific coast soon, as port manager for Vancouver, B. C.

THESE GENTLEMEN PARTICIPATED in a recent meeting in Vancouver, B. C. of the Pacific Coast Branch of the Technical Section of the Canadian Pulp and Paper Assn. We published a report on the meeting last month. Left to right in these pictures are:

Top row: John Ashby, Mill Manager, Westminster Paper Co., and Chairman of the Coast Branch; Don MacLaurin, Control Superintendent, Powell River Co.; Henry Ostrowski, Technical Supervisor, Pacific Mills, Ltd. (who described a new recovery system); "Dusty" Rhodes, Superintendent, Sorg Pulp Co.; J. W. Fraser, Plant Chemist; W. A. Bain, Resident Engineer, B. C. Pulp & Paper Co.

Second row: Robert Dekking, who described power plant modernization at the Woodfibre, B. C., mill of B. C. Pulp & Paper Co.; M. G. Whitehead of the same company; J. Youden, Norman Stables, Sulfite Supt., and Mr. Ostrowski, from Pacific Mills.

Third row: John Evans, Chemical Engineer, Sorg Pulp Co.; Harry Bamford, Groundwood Supt., Westminster Paper Co.; A. Chord, Powell River Co., and Harold McBean of British Columbia Pulp & Paper Co.



Our GREATEST asset has no dollar value because you can't put dollar signs in front of people. It's easy for the bookkeeper to find nearly $40,000 of equipment and facilities behind every single employee — that's the kind of investment value he understands. But, we think you'll agree, our greatest asset is the men and women of Puget Power . . . the "know how" they've acquired in years of public service. More than 25% of these folks have served you for more than 15 years — some as long as 45 to 50 years.

PUGET SOUND POWER & LIGHT CO.

FRANK McLAUGHLIN, President

Personals

PACIFIC COAST

WILLIAM S. LUCEY, vice president in charge of plant operations, has been elected executive vice president of Rayonier Incorporated, with headquarters in New York. Other changes: George Cropper became resident manager of the Hoquiam, Wash., mill with supervision over Shelton mill, where Winston Scott advanced to resident manager, just before his 40th birthday. Lyall Tracy, former resident manager at Hoquiam, became industrial relations manager and moves to Olympia, Wash. Steve Rupert becomes assistant resident manager at Shelton and John B. Gray at Hoquiam. Dr. Robert E. Brown, former assistant at Hoquiam, moves to New York as assistant to Dr. R. M. Pickens, technical sales manager. Ed McGill is general superintendent at Shelton and Fred Doherty becomes pulp mill superintendent.

JESSE LEWIS, superintendent at Coos Bay Pulp Co., Anacortes, Wash., recently made his first trip back to the parent company and mill, the Scott Paper Co., in Chester, Pa., where he saw high speed machines converting the pulp he has been producing.

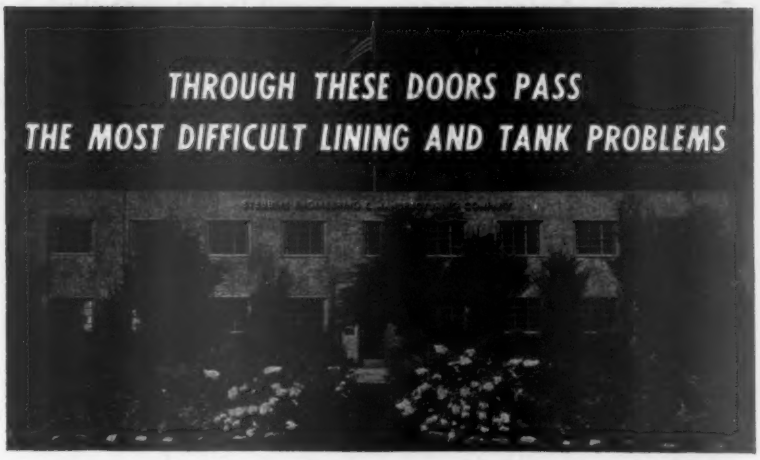
G. J. ARMBRUSTER, retired general superintendent of Soundview Pulp Co., recalled his years as superintendent in New Brunswick mills when he was recently visited at his Everett, Wash., home by Manager C. T. Clark of the Restigouche mill at Campbellton, which "G. J." started up years ago, and by Chief Engineer F. O. White of the Fraser mill at Edmundston.

JAKE WERSCHKUL, formerly of Portland, Ore., has been appointed pulp and paper industry representative of B. F. Goodrich Co., with offices at 1224 First Ave. South, Seattle Wash. At last reports he was seeking a home in Seattle—lease, rent or buy—and would appreciate any assistance He visited the huge Akron, O. plant of Goodrich in December.

F. M. W. VAN SCHAIK, traffic manager, Everett Pulp & Paper Co., Lowell, Wash., recently made an extensive study of pulp and paper conditions in Sweden and Norway. Another Pacific Coast man who recently returned from an extensive Scandinavian trip is *HALVAR LUNDBERG,* chemical engineer, Seattle.

JOHN WILCOX of Electric Steel Foundry Co., Portland, Ore., made an extended trip to a number of mills in eastern Canada for his company.

RAYMOND HATCH, Longview, Wash., research director of the Pulp Division, Weyerhaeuser Timber Co., was married this past fall to the former Mrs. Bess Barnum, who was living in California and prior to that in Tacoma, Wash. Her daughter is the wife of Frank Hatch, Ray's son, who is with Shell Oil Co.



They enter because gathered under this roof is a vast reservoir of practical and theoretical experience amassed over 63 years specialization in designing, constructing, and servicing linings and tile tanks used in the various pulp and paper making processes.

Since its beginning Stebbins has been closely allied with all new developments. Just now Stebbins engineers are actively engaged on linings for use in the ammonia and magnesia base cooking process.

When you have a lining or tile tank job consult Stebbins.

Stebbins Engineering Corporation
TEXTILE TOWER SEATTLE 1, WASHINGTON

HAROLD OLIVER, newest member of the Soundview Pulp Co. supervisory staff, is a bowler of no small accomplishments. At the recent Washington State bowling meet in Bellingham, Mr. Oliver placed fifth, missing first place by a split with no pick-up. He also missed a 300 game when he got a spare in the last frame.

J. PHILIP WEYERHAEUSER, Jr., executive vice president of Weyerhaeuser Timber Co., and Mrs. Weyerhaeuser were recent visitors to Powell River, B. C., and he was particularly interested in seeing the Weyerhaeuser type hydraulic barker in operation there.

BURKE MORDEN, of Morden Machines Co., is back in Portland, Ore., after a trip during which he spent 10 days visiting mills in the Mexico City and Monterey, Mex., areas. He said these Mexican mills were furnishing much of the needs of their country and several of them have modernized operations.

ROLFE P. LUNGREN, chief chemist and later shift superintendent for Soundview Pulp Co. during the past 17 years, has left the Everett mill to go into business for himself as owner of a wholesale electric supply company in Klamath Falls, Ore.

C. B. NEIL, engineer for Everett Pulp & Paper Co., Lowell, Wash., and his wife, recently made a trip to their former home in Plainwell, Mich., where their daughter lives. He was formerly engineer at Michigan Paper Co. of Plainwell.

JAMES RUBUSCH, of Wenatchee, Wash., representative of Improved Paper Machinery Co., Nashua, N. H., recently completed his first tour of California, Oregon and Washington mills in his new capacity.

J. E. KEARNEY, management executive of Swenson Evaporator Co., spent a few days calling on mills in the Portland, Ore., area with Jack Wilcox, of Electric Steel Foundry Co., during a recent trip to the Pacific Coast.

VIC HANER, plant engineer for Puget Sound Pulp and Timber Co., recently went on a hunting jaunt into the wilds of Bellingham's back country with amazing results. First Vic picked up two pheasants, then skirting a bog, he saw some ducks coming in, and he got three. A short cut through a thicket to his waiting car found the dead shot engineer startling a five-point buck, which he added to his catch.

FIFTY-CENT CIGARS were being smoked around Puget Sound Pulp and Timber Co. laboratory Nov. 15, all because Eric Ericsson, technical director, and Mrs. Ericsson were proud parents of a daughter, Heidi. Little Heidi was preceded in the Ericsson household by Mark Stephen, a year-and-a-half old.

A $150 AWARD was made recently to William Priebe, one of the head adjusters in the bag plant of Crown Zellerbach Corp., Camas, for three inter-related suggestions for improvements on the bag machines, improving production on the line.

Rayonier Purchases Extensive Timberlands

Rayonier Incorporated, operators of four pulp mills in Washington and Florida, became unquestionably one of the leading timber operators in the Far West several weeks ago when it purchased about 120,000 acres of timberlands in three counties of Washington state on the Olympic peninsula, as well as other properties of the pioneer Polson Logging Co.

About 50,000 acres bear virgin timber and the remainder are "reproduction" lands. Rayonier not only acquired this timber and vast acreage to perpetuate its future pulp operations, but it also acquired a 125-mile railroad, a big sawmill and interest in a second sawmill, a box factory, an office building and extensive tidelands in Hoquiam and other properties. The purchase price was reported to be around $15,000,000.

Heretofore, the Hoquiam, Wash., mill of Rayonier had been served from these timberlands, and this arrangement will continue, now that the company owns the timber. Occasionally, it may fill in needs at Port Angeles and Shelton mill. For some time at Hoquiam, there has been building provision made for expansion of the pulp and paper mill there whenever desired or whenever found feasible.

This is the second big timberland acquisition by Rayonier in the west, it having previously purchased the Bloedel, Donovan timberlands in the northern Olympic peninsula.

Rayonier announced completion of private financing in the amount of $20,000,000 through the Metropolitan Life Insurance Company and a group of banks. The loans are to be amortized over a period of fifteen years.

Part of the proceeds are to retire existing loans, according to President Edward Bartsch, and the balance is being used in payment of the recently announced acquisition of a controlling interest in the Polson Logging Co.

Wood Utilization For Fibreboard Mills

N. M. Brisbois, operations vice president, Fibreboard Products Inc., San Francisco, told California foresters in San Francisco recently of how his company is using salvaged wood and will extend this use.

Its new mill at East Antioch, Calif., said he, will include a semi-chemical pulping plant using wood refuse from sawmills located at various points in the Sierra. The wood will be chipped without removing the bark.

"Ours will be the first process in California involving sawmill trimmings where the finished product will be used for 100% paperboard," he said. "The second unit of the mill will be a standard kraft pulp mill, which will use raw material in the form of logs. These will be largely white and red fir. It is doubtful that these species will be competitive with the pines for lumber in the long pull, so we feel our plans fit nicely into the overall economy of California forests.

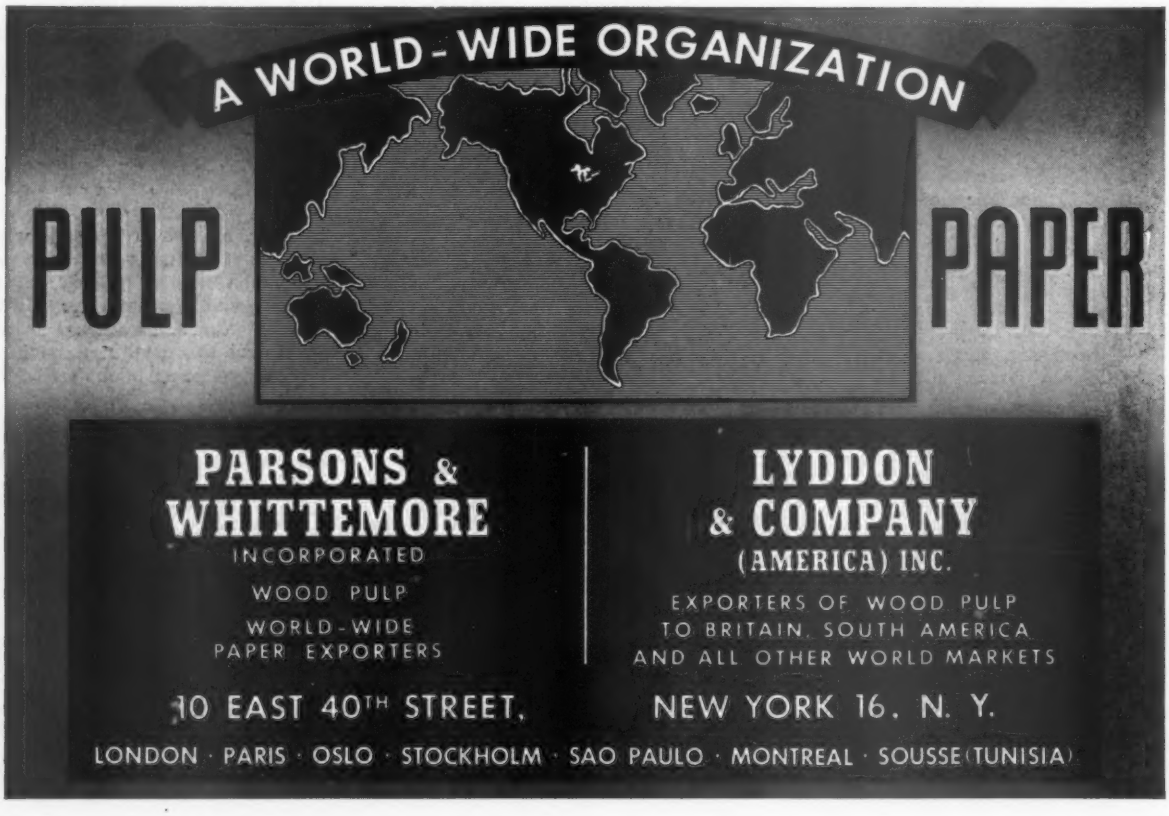
"The investment required for a pulp and paperboard mill is so large that there must be a permanency of supply assured. This is true of pulp mills (costing about $60,000 per ton-day), to a greater extent in the case of integrated pulp and board mills (costing about $70,000 per ton-day); and to the greatest extent in a plant manufacturing pulp, paperboard and converted articles such as cartons, at the East Antoich mill.

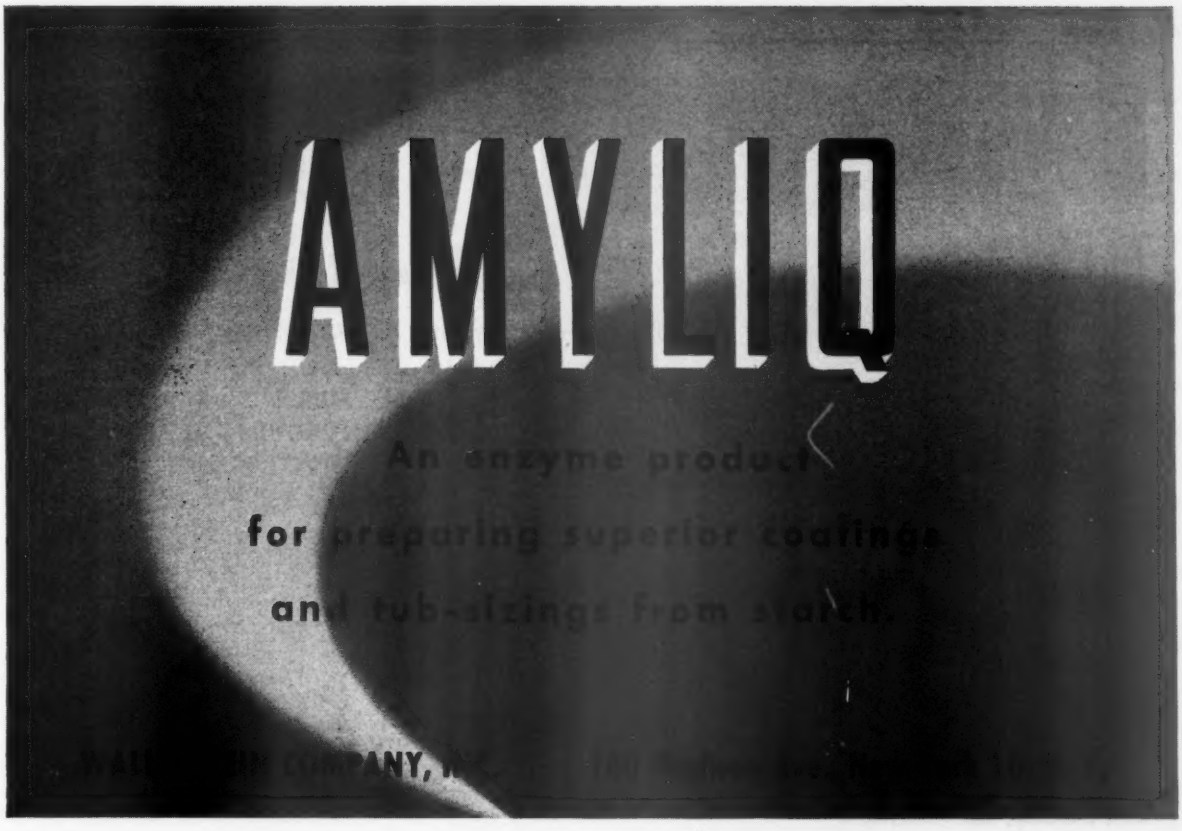
"We have acquired some 80 thousand acres of forest lands in the Sierras, and are working out the details of a sustained yield agreement with the U. S. Forest Service which will result in a total acreage for sustained yield purpose of approximately 110,000 acres."

Mr. Brisbois spoke of Fibreboard's logging operations in the Pacific Northwest, saying that their re-logging operations have proved more profitable than the cutting of virgin timber.

Kraft Newspaper Wrappers Are Cheaper

It is cheaper to use kraft paper wrappers for newspapers than the customary newsprint wrappers, taking into consideration postage paid based on weight of paper used, according to Robert W. Taylor of the Flint, Mich., Journal.





LONGVIEW FIBRE CO.
Gives First Service Pins

Longview Fibre Co. inaugurated a program of annual service pin award dinners with a banquet Dec. 3 in Monticello Hotel, Longview, Wash. Of the 159 men and women receiving pins, 35 were 20-year men.

L. C. Peabody of San Francisco, assistant to the president, was toastmaster. R. S. Wertheimer, vice president and resident manager, as principal speaker, emphasized the importance of teamwork throughout the organization and industrial obligations. He said:

"All of us should be aware that the way in which industry functions in these times is important to our nation as well as to ourselves. The threat of totalitarian government is a real threat. There are those who are working constantly to bring about the kind of debacle that occurred in the '30s so that they will have opportunity to take over. What we can do to keep this from happening is contingent on the harmonious give and take and reasonable methods which have developed over a period of years."

He compared individual industry to "private governments," setting up their own practices and standards. Mr. Wertheimer emphasized the importance of these "private governments" as a potent force to carry on our free-enterprise system. He said that if all of the industry can maintain the same harmonious relationships which have prevailed in the pulp and paper industry, the subversive groups will not have a chance.

John Sherman, vice president of International Brotherhood of Pulp, Sulfite and Papermill Workers (AFL) told the group that service pins indicate satisfactory services over a specified period of time. He said, "It also symbolizes the cooperation built up over the years between management and men and women in the mill. That cooperation has brought about many of the improved conditions under which we work today."

Boyd Wickwire, personnel manager, called off the names of individuals to whom pins were awarded, and Mr. Wertheimer made the presentations.

Twenty-year service pins were presented to the following:

Gip Becker, John Benedict, Ben Brekke, Shorty Ditter, Carl Dupras, Carl Fahlstrom Fred Graham Fred Green, John Gunn, Bob Harris, John Hickman, Frank Horn, M. V. Johnson, Leo Johnston, Elmer Kletsch, Ed Lane, Archie Laushway, Steve Maunus, Earl Miller, Lafe Neeley, Al Ortwein, Fred Plant, Slim Ridling, Vance Roley, Charlie Russell, Jack Ryan, John Schuh, Frank Sutcliffe, Bill Van Dinter, Wally Wenzel, Danny Alberti, Roy Alston, Jim Maddock and Ed Harmon.

Use of Slabs And Rejects

Utilization of slabs and reject lumber for pulpwood is anticipated by E. E. Flood, president of Pacific Paperboard Co., Longview, Wash. His organization is currently receiving low-grade and reject spruce lumber at the plant in carload lots for processing into groundwood. This was started in November as an experimental trial to determine the practical possibilities of the project.

The possibility of salvaging hemlock and white fir slabs from the lower Columbia River sawmills and converting this lumber side-run into pulp appears to be strong. Every sawmill in the vicinity cutting these species can increase profits and also aid in more complete use of the timber harvest by segregating and barking the slabs for pulp making, according to Mr. Flood.

This plant is now using 75 cords of pulpwood daily and the consumption will be increased to 125 cords with installation of the new newsprint machine.

Discharge End, 2 logs being kicked back

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NOW BARKING DRY PINE LOGS
16′ FT. L. UP TO 38″ D. FOR
SOUTHERN SAWMILL
CONVERTING SLABS
INTO PULP

CAPACITY: 25 CORDS PER HR.
16′ logs dry barking

POWER: 125 H.P. MOTOR

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TAKES ANY LOG FOR ANY CHIPPER
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